**Support:** http://www.jcmglobal.com/en/contact/default.aspx **Web-Site:** http://www.jcmglobal.com

## Bill Acceptor Series

# Intelligent Cash Box (ICB®) System

***Operation and Maintenance Manual***

***(Revision 4)***

**P/N 960-000044R_Rev. 4 {EDP #214030}**

a RoHS Compliant Product

**Issue #ICB-SME-01-04**

**© 2012, Japan Cash*M*achine Co., Limited**

**Issue #ICB-SME-01-04**

| REVISION HISTORY | | | |
|---|---|---|---|
| **Rev ?.** | **Date** | **Reason for Update** | **Comment** |
| A | 2/25/04 | **Initial Pagemaker 5.6 Version converted to Framemaker 7 Format** | |
| 1 | 7/3/07 | **Updated to new Framemaker 8 Format, and added new HQ Update Information. New Gold Logo Added.** | |
| 2 | 11/9/07 | **Added new HQ Update Information. New Global Logo Cover Added.** | |
| 3 | 7/30/09 | **Added new Docking Station Updates, MDM Screen Operations information and update Exploded View Diagrams.** | |
| 4 | 3/28/12 | **Updated to reflect MDM V2.2.1 use and added a Troublshooting Section.** | |
| | | | |
| | | | |

## International Compliance

- RoHS Directives or or or
- CE Mark
- FCC Directives See below.

Contains Transmitter Module
FCC ID: VZQNRWA3
MODEL NO.: NRWA3
IC: 8285A-NRWA3
This device complies with Part 15 of FCC Rules and RSS-Gen of IC Rules. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.

FCC WARNING
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
FCC NOTICE
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
IC NOTICE
This class A digital apparatus complies with Canadian ICES-003.
Cet appareil numerique de la classe A est conforme a la norme NMB-003 du Canada.

**Copyright © 2012 By Japan Cash*M*achine Co, Limited**

This product document (hereinafter referred to as "Manual") is fully covered by legal Copyrights owned by the Japan Cash Machine, Co., Ltd., (hereinafter referred to as "JCM") under Japanese laws and other Foreign Countries.
This Manual contains many copyrighted, patented or properly registered equipment items manufactured by JCM, that are prohibited and illegal to duplicate, replicate, copy in whole, or in part, without the express authorization by JCM with the following exceptions:

1. When an authorized JCM agency or distributor duplicates the Manual for sales promotion and/or service maintenance of the product, or technical service personnel education as required; and
2. When an end user duplicates the Manual to maintain operation of the product or operate the product in general. JCM retains all rights to amend, alter, change or delete any portion of this Manual in whole, or in part, or add items thereto without notice regarding the product or its related products.

JCM is a registered trademark of Japan CashMachine Co, Limited. All other product names mentioned herein may be registered trademarks or trademarks of their respective companies. Furthermore, ™, ® and © are not always mentioned in each case throughout this publication.

# Intelligent Cash Box (ICB®) System
## Table of Contents

**TOC** **Page**


1 General Information ..... 1
2 Introduction ..... 2
3 Equipment Identification ..... 2
- Intelligent Cash Box ..... 2
- Read-Write Tool ..... 2
- Printer Station ..... 3

4 Installation - Retrofit Kits ..... 3
- WBA-SS Chassis Modification ..... 3
- Retrofitting an Existing Cash Box ..... 3

5 Early WBA-12/13/22/23-SS Retrofit ..... 4
6 New WBA-12/13/22/23-SS Retrofit Bracket ..... 5
7 WBA-12/13/22/23-SU Retrofit ..... 5
- Swivel Plate (F-swivel plate) ..... 5

8 UBA ICB Module ..... 6
9 Software ..... 6
- The ICB CD ..... 6
  - ICB Print Ticket.cab ..... 6
- Machine Number Set Ticket Procedure ..... 7

10 ICB Enable/Disable Procedure ..... 9
- To Print Tickets ..... 10
- To Enable ICB In The WBA/UBA Validator ..... 10
- To Disable ICB In a Validator ..... 10

11 UBA Diagnostic Error Codes for an ICB ..... 10
12 iVIZION ICB Enable/Disable Procedure ..... 11
13 MDM2 Program Operation ..... 12
- Soft Count ..... 12
- Working with MDM 2 ..... 13
- Program Registration ..... 14
  - Automatic Registration ..... 14
  - Manual Registration ..... 15
- Starting the MDM2 Program ..... 16
- MDM2 Main Screen ..... 16
- MDM2 Access & User Permissions ..... 17
  - Adding a User ..... 17
  - Deleting a User ..... 17
  - Change User Password ..... 18

14 Setting MDM Communication Ports ..... 18
15 Setting MDM Cash Box Numbers ..... 19
16 Setting an MDM Data Location ..... 20
17 Setting a Dolphin Data Location ..... 21
18 IGT Advantage System ..... 22
19 Data Erasing ..... 23
20 Setting MDM2 Alert Options ..... 24
21 Setting Alerts ..... 25



© 2012, Japan CashMachine Co., Limited

# Table of Contents
## Continued

Page


Setting Asset Number Alerts ... 25
Setting Cash Box Number Alerts ... 26
22 Setting the Language Preference ... 27
23 Communicating with Read-Write Tools ... 28
Data File Creation ... 28
Reading an ICB Cash Box ... 29
24 Reading ICB Cash Box Data ... 30
25 Tickets and Printers ... 31
Sorting Cash and Tickets ... 31
26 Closing the MDM2 Application ... 32
27 Help Functions ... 32
User Manual ... 32
Contact Us ... 32
About MDM2 ... 33
28 Exploded Views and Parts Lists ... 34
Printer Station Exploded View ... 34
Printer Station Parts List ... 35
Silver Read-Write Tool Exploded View ... 36
Silver Read-Write Tool Parts List ... 37
Black Read-Write Tool Exploded View ... 38
Black Read-Write Tool Parts List ... 39
Standard Intellegent Cash Box Exploded View ... 40
Large Intellegent Cash Box Exploded View ... 41
Standard & Large Intellegent Cash Box Parts List ... 42
iVIZION Cash Box Unit 1 Exploded View ... 44
iVIZION Cash Box Parts Lists ... 45
Metal Cash Box Modification Kit Exploded View ... 46
Metal Cash Box Modification Kit Parts List ... 47
29 Troubleshooting ... 48
ICB Ticket Application ... 48
MDM2 Application ... 50
Isolating Communications Problems ... 51
DB-9 to DB-9 Connector Cable ... 51
DB-9 to USB Serial Converter ... 51
4-Port RS-232 to 44-pin PCI Adapter Cable ... 52
ICB Read-Write Tool ... 53
ICB Cash Boxes ... 53
Initialization Error Codes ... 55
Cash Box Memory Modules ... 55
Battery Test Procedures ... 56
No Load Testing ... 56
Load Testing ... 56
Refresh Procedure ... 56
A Index ... 57
B Glossary ... 59


 © 2012, Japan CashMachine Co., Limited

# Intelligent Cash Box (ICB®) System
## List of Figures

**LOF** **Page**


Figure 1 Intelligent Cash Box (ICB) Docking Station Systems ....1
Figure 2 Intelligent Cash Boxes ....2
Figure 3 Read/Write Tool Types ....2
Figure 4 Printer Station Types ....3
Figure 5 Hole Drilling Requirement ....3
Figure 6 Drill Hole Template ....3
Figure 7 Cash Box Type Comparisons ....3
Figure 8 Right Side Retaining Screw Location ....4
Figure 9 Left Side Retaining Screw Locations ....4
Figure 10 New CPU Board with Bracket Attached ....4
Figure 11 CPU Board Bracket Harness Connector ....4
Figure 12 Optical Interface Harness Attachment ....4
Figure 13 Mounting the Optical Interface Board ....5
Figure 14 New WBA ICB CPU Board Bracket ....5
Figure 15 Post-2009 WBA ICB Module Location ....5
Figure 16 Swivel Plate E-ring Removal ....5
Figure 17 Black Mylar Sheet Placement ....5
Figure 18 Cable Tie Secured to Harness to Plate ....6
Figure 19 Pre-2009 UBA ICB Module Location ....6
Figure 20 Post-2009 UBA ICB Module Location ....6
Figure 21 Initial ICB Ticket Setup Screen ....6
Figure 22 ICB Set Ticket Select Icon ....6
Figure 23 IT Printer Simulation Dialog Screen ....7
Figure 24 COM Setting Screen ....7
Figure 25 Form 1 Ticket Format Screen ....7
Figure 26 Form 2 Ticket Format Screen ....7
Figure 27 Sequential Printing Switch Setting ....8
Figure 28 Ticket Format Screen (Form 3) ....8
Figure 29 Typical Empty CSV Information Screen ....8
Figure 30 Filled-in CSV Information Screen ....8
Figure 31 Typical CSV Formatted Ticket Example ....8
Figure 32 Saving New CSV Information Type ....8
Figure 33 Typical CSV Messages ....9
Figure 34 IT Printer Simulation Screen ....9
Figure 35 COM Setting Screen ....9
Figure 36 Ticket Format Screen (Form 1) ....9
Figure 37 “Enable Ticket” Typed in Form 1 Screen ....9
Figure 38 “Disable Ticket” Typed in the Form 1 Screen’s Text Entry Field ....10
Figure 39 Typical Machine Number Ticket ....10
Figure 40 Enable Ticket Example ....10
Figure 41 Disable Ticket Example ....10



© 2012, Japan CashMachine Co., Limited

# List of Figures
## Continued


| | | Page |
|---|---|---|
| Figure 42 | JCM Tool Suite Standard Edition Start-up Screen | 11 |
| Figure 43 | ICB Utility Tool Function Screen | 11 |
| Figure 44 | JCM Tool Suite Standard Edition Service Mode Selection Screen | 12 |
| Figure 45 | iVIZION Test Item Screen | 12 |
| Figure 46 | ICB Settings Screen | 12 |
| Figure 47 | MDM Set-up File | 13 |
| Figure 48 | JCM MDM Installer Welcome Screen | 13 |
| Figure 49 | Select Installation Folder Screen | 13 |
| Figure 50 | Confirm Installation Screen | 13 |
| Figure 51 | Installing JCM MDM Screen | 14 |
| Figure 52 | Installation Complete Screen | 14 |
| Figure 53 | Automatic Registration Screen | 14 |
| Figure 54 | MDM2 Login Screen 1 | 14 |
| Figure 55 | Manual Registration Screen | 15 |
| Figure 56 | JCM Product Activation Screen | 15 |
| Figure 57 | Obtain Product Activation Key Screen | 15 |
| Figure 58 | Activation Key Entry Screen | 15 |
| Figure 59 | MDM2 Login Screen 2 | 15 |
| Figure 60 | Activation Failed Dialog Screen | 16 |
| Figure 61 | MDM2 Login Screen 3 | 16 |
| Figure 62 | MDM2 Main Screen | 16 |
| Figure 63 | Select User Function Menu 1 | 17 |
| Figure 64 | Add New User Selection Screen | 17 |
| Figure 65 | Enter User Name Dialog Screen | 17 |
| Figure 66 | New User Modification Selection Screen | 17 |
| Figure 67 | Select User Function Menu 2 | 17 |
| Figure 68 | Delete a User Selection Screen | 18 |
| Figure 69 | Select Change Password Menu | 18 |
| Figure 70 | Change Password Entry Screen | 18 |
| Figure 71 | Invalid Password Dialog Screen | 18 |
| Figure 72 | Select System Settings Menu 1 | 18 |
| Figure 73 | System Settings Serial Ports Selection Screen | 19 |
| Figure 74 | Select System Settings Menu 2 | 19 |
| Figure 75 | Cash Box Numbering Assignment Screen | 20 |
| Figure 76 | Select System Settings Menu 3 | 20 |
| Figure 77 | Folder Browse Selection Screen | 20 |
| Figure 78 | Data Folder Placement Screen | 21 |
| Figure 79 | Select System Settings Menu 4 | 21 |
| Figure 80 | Selecting Dolphin Data Base File | 21 |
| Figure 81 | Specifying a Dolphin Database Screen | 22 |
| Figure 82 | Select System Settings Menu 5 | 22 |
| Figure 83 | Specifying SQL Server Parameters Screen | 23 |
| Figure 84 | Select System Settings Menu 6 | 23 |
| Figure 85 | Data Entry Mode Screen | 24 |


 © 2012, Japan CashMachine Co., Limited

# List of Figures
## Continued


| | | Page |
|---|---|---|
| Figure 86 | Selecting Edit/Alerts Menu 1 | 24 |
| Figure 87 | Alert Options Selection Screen 1 | 25 |
| Figure 88 | Selecting Edit/Alerts Menu 2 | 25 |
| Figure 89 | Asset Number Search Dialog Screen | 25 |
| Figure 90 | Alert Options Selection Screen 2 | 26 |
| Figure 91 | Selecting Edit/Alerts Menu 2 | 26 |
| Figure 92 | Asset Number Search Dialog Screen | 26 |
| Figure 93 | Alert Options Selection Screen 3 | 27 |
| Figure 94 | Selecting Edit/Language Menu | 27 |
| Figure 95 | Typical Selected Spanish Language MDM2 Main Screen | 28 |
| Figure 96 | Read-Write Tool Ready Screen | 28 |
| Figure 97 | Read-Write Tool Not Ready Screen | 28 |
| Figure 98 | Read-Write Tool Ready Indicator | 29 |
| Figure 99 | Read-Write Tool Reading Indicator | 29 |
| Figure 100 | Read-Write Tool Initialization Indicator | 29 |
| Figure 101 | Read-Write Tool Removal Indicator | 29 |
| Figure 102 | Unable to Communicate Indicator 1 | 29 |
| Figure 103 | ICB Memory Module Switch & Sensors | 30 |
| Figure 104 | ICB Cash Box Data Display Screen | 30 |
| Figure 105 | Two Available Sample Ticket Options | 31 |
| Figure 106 | Exit Application Screen | 32 |
| Figure 107 | Alternate Exit Screen Button Location | 32 |
| Figure 108 | Exit Questioning Dialog Screen | 32 |
| Figure 109 | User Manual Access Screen | 32 |
| Figure 110 | Contact Information Selection Screen | 32 |
| Figure 111 | Contact Us Information Screen | 33 |
| Figure 112 | About Us Selection Screen | 33 |
| Figure 113 | MDM2 Version Number Screen | 33 |
| Figure 114 | Printer Station Exploded View Diagram | 34 |
| Figure 115 | Silver Read/Write Tool Exploded View Diagram | 36 |
| Figure 116 | Black Read/Write Tool Exploded View Diagram | 38 |
| Figure 117 | Standard UBA-SS Intelligent Cash Box Unit Exploded View Diagram | 40 |
| Figure 118 | Large UBA Intelligent Cash Box Exploded View Diagram | 41 |
| Figure 119 | iVIZION Cash Box Unit 1 Exploded View Diagram | 44 |
| Figure 120 | Metal Cash Box Retrofit Kit Exploded View Diagram | 46 |
| Figure 121 | Communications Settings Screen | 48 |
| Figure 122 | Printer Communications Screen | 48 |
| Figure 123 | Communications Error Screen | 48 |
| Figure 124 | Communications Error Example Screen | 49 |
| Figure 125 | Enable Ticket Set-up Screen | 49 |
| Figure 126 | Disable Ticket Set-up Screen | 49 |
| Figure 127 | Machine No. Ticket Set-up Screen | 50 |
| Figure 128 | Timeout Status Indicator Screen | 50 |
| Figure 129 | Silver Read-Write Tool Rear View | 50 |


 © 2012, Japan CashMachine Co., Limited

# List of Figures
## Continued

Page

Figure 130 Black Read-Write Tool Rear View ....50
Figure 131 4-Port RS-232 to 44-Pin Adaptor Cable ....51
Figure 132 Printer Error Indicator Screen ....52
Figure 133 Silver Read-Write Tool DB-9 Male Connector and Power Switch Locations ....52
Figure 134 Black Read-Write Tool DB-9 Male, 6-pin DIN Connector and Power Switch Locations ....52
Figure 135 2000 Note Cash Box Tentacle Option ....53
Figure 136 No Printer Paper Indicator Screen ....53
Figure 137 Unable to Communicate Indicator 2 ....53
Figure 138 ICB Memory Module Switch Location ....54
Figure 139 ICB Memory Module Sensor Locations ....55
Figure 140 Broken Left Battery Connection ....55
Figure 141 Missing Memory Module Crystal ....55
Figure 142 Battery Refresh Harness Assembly ....55
Figure 143 Refresh Harness Battery Connection ....55

 © 2012, Japan CashMachine Co., Limited

# Intelligent Cash Box (ICB®) System
## List of Tables

Page

**LOT**


Table 1 ICB Initialization Errors ..... 11
Table 2 Typical Count Room Equipment ..... 31
Table 3 Printer Station Parts List Table ..... 35
Table 4 Silver Read/Write Tool Parts List ..... 37
Table 5 Black Read/Write Tool Parts List ..... 39
Table 6 UBA Cash Box Unit Parts List ..... 42
Table 7 iVIZION Cash Box Unit 1 Parts List ..... 45
Table 8 Metal Cash Box Modification Parts List Table ..... 47



© 2012, Japan CashMachine Co., Limited

THIS PAGE INTENTIONALLY LEFT BLANK

 © 2012, Japan CashMachine Co., Limited

# Intelligent Cash Box (ICB®) System

## Bill Acceptor Series

Revision 4

## 1 General Information

This manual provides a general overview of the Intelligent Cash Box (ICB®) System pictured in Figure 1. This first section is designed to help you navigate through the manual with ease and provides the following information:

- Introduction
- Equipment Identification
- Installation - Retrofit Kits
- Early WBA-12/13/22/23-SS Retrofit
- New WBA-12/13/22/23-SS Retrofit Bracket
- WBA-12/13-SU Retrofit
- UBA ICB® Module Software
- ICB® Enable/Disable Procedure
- UBA Diagnostic Error Codes for an ICB
- MDM2 Program Operation
- Setting MDM Communication Ports
- Setting MDM Cash Box Numbers
- Setting an MDM Data Location
- Setting a Dolphin Data Location
- Data Erasing
- Setting MDM2 Alert Options
- Setting the Language Preference
- Communicating with Read-Write Tools
- Reading ICB Cash Box Data
- Tickets and Printers
- Closing the MDM2 Application
- Help Functions
- Exploded Views and Parts Lists
- Troubleshooting.

In order to make operation of this Unit easier and make navigation within this manual simpler, the following illustrations were used within the text:

- **Safety Instructions,** which need to be observed in order to protect the operators and equipment, have been written in bold text and have been given the pictograph: ⚠
- **Special *Notes*,** which effect the use of the Read-Write Tool, have been written in *italic* text and have been given the pictograph: ☞
- **Steps,** requiring the operation to perform specific actions are given sequential numbers (1., 2., 3., etc.).

**Figure 1** Intelligent Cash Box (ICB) Docking Station Systems


© 2012, Japan CashMachine Co., Limited

# 2 Introduction

JCM's Intelligent Cash Box (ICB®) System increases efficiency in the Soft Drop and Soft Count process for a Casino. This is accomplished using proprietary Software to create individual Machine Set Tickets which are printed by the ICB® System's Printer Station. Those tickets are inserted into an ICB® compatible Bill Validator at specific Machine locations.

When the ICB® Asset Ticket is placed in an ICB-equipped Machine, the Validator transmits the machine set ticket ID to the Cash Box through Optical Sensors or RFID depending on the Validator type.

After the Cash Box ID has been set, all insertions into the Validator are transmitted to the ICB Cash Box Memory Module in the same manner.

When the Cash Box is removed from the Machine, it is placed on a Read-Write Tool that is attached to the Printer Station. The Read-Write Tool reads the contents of the Cash Box, transmits the information to the Printer Station, and a ticket is generated with the Machine ID in Bar Code Format. The Read-Write Tool resets the Cash Box Data Fields to Zero (0), and it is ready to be re-installed in any compatible Machine. Transaction data is sent to the MDM Computer.

# 3 Equipment Identification

Figure 2, Figure 3 and Figure 4 illustrate and explain the primary component parts of the Intelligent Cash Box (ICB®) System.

## Intelligent Cash Box

There are two differences between a Standard Cash Box and the Intelligent Cash Box (ICB®). The handle is hinged, and there is a Metal box above the handle. The rectangular, Metal Box contains a PCB with an LED, two Sensors, a Lithium Battery (life-span ~5 years), and a Micro-controller containing on-board RAM.

The features on a Plastic Cash Box are identical to those of a Metal Cash Box, but the Case is manufactured out of a durable impact resistant plastic material instead.

The ICB RFID Tag is installed inside the Cash Box of an iVIZION Cash Box.

**Standard iVIZION Plastic (JAC #8i8-000005R)** | **Large iVIZION Plastic (JAC #8i8-000006R)** | **Metal (JAC #808-001020R)** | **Standard UBA Plastic (JAC #808-001035R)** | **Large UBA Plastic (JAC #808-001068RA)**

**Figure 2** Intelligent Cash Boxes

## Read-Write Tool

This tool reads data stored in the Cash Box Memory Module. It transmits the information to the Printer Station and MDM Computer, then sets data fields in the Cash Box to zero. This device is also referred to as a "Docking Station" in some earlier JCM Documentation.

**Silver JAC #880-100003R** | **Black (JAC #550-100721R) US, (JAC #550-100747R) EURO**

**Figure 3** Read/Write Tool Types


© 2012, Japan CashMachine Co., Limited

### Printer Station

A Printer Station can contain a JCM TSP-02 or JCM PayCheck4 Printer. It prints the Machine Number Set Tickets and Soft Count Tickets when a Cash Box is placed on the Read-Write Tool (aka. Docking Station). It has a CPU Circuit Board that requires an EPROM. It includes harnessing for connection to the Read/ Write Tool Device.

*NOTE: Make sure the latest software version is installed in the Unit.*

Depending on the Count Sort Machine type used, the Printer type may be a separate Unit (i.e., TicketTrax, G&D DEG/Linker, etc.).

TSP-02 JAC #550-100432R PayCheck4 JAC #853-000069R

**Figure 4** Printer Station Types

# 4 Installation - Retrofit Kits

## WBA-SS Chassis Modification

It may be necessary to drill a hole in earlier model WBA-SS Frames to allow communication with an ICB® Cash Box to occur (See Figure 5).

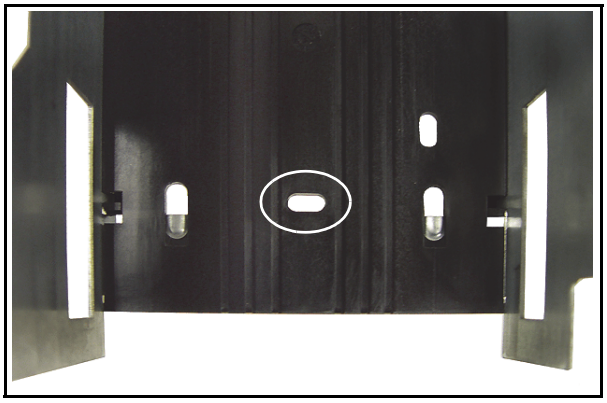


**Figure 5** Hole Drilling Requirement

Required tools are an electric Drill, a 5mm Drill Bit, and the template shown in Figure 6.

Part No. 501-000055R

**Figure 6** Drill Hole Template

## Retrofitting an Existing Cash Box

To retrofit an existing Standard Metal Cash Box proceed as follows:

1. Drill out the two existing 3/16” Rivets securing the Handle in place and remove it.
2. Line-up the new ICB® Handle Assembly (JAC Part No. 550-100503R) and install it by using the two new 3/16” Rivets (JAC Part No. 148-000001) provided in the Kit. (See the Figure 7 Cash Box comparison Photos).

*NOTE: Make sure to blow out any metal drill shavings that accumulate to prevent damage to the Cash Box mechanism.*

Large Plastic iVIZION ICB Cash Box Large Plastic ICB Cash Box Standard Plastic ICB Cash Box Standard Metal ICB Cash Box

**Figure 7** Cash Box Type Comparisons


© 2012, Japan CashMachine Co., Limited

# 5 Early WBA-12/13/22/23-SS Retrofit

*NOTE: The following procedure is for retrofitting an early Version Processor Bracket only.*

To retrofit an early WBA-12/13-SS/WBA-22/23-SS Unit Processor Bracket, proceed as follows:

1. Remove the WBA Validator Head.
2. Disconnect the seven (7) wire Harnesses, attached to the Transport Printed Circuit Board. One (1) is located on the side, and the other six (6) are located on the top.
3. Remove the three (3) screws securing the Circuit Board Tray to the Frame housing (See Figure 8 and Figure 9).

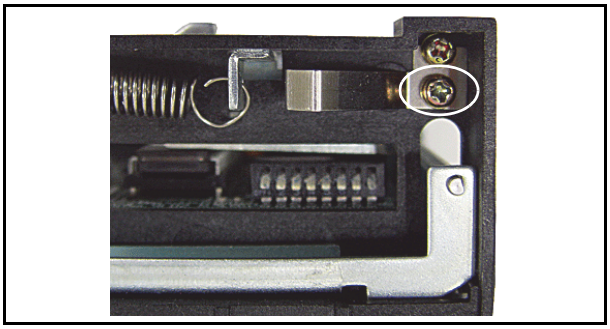


**Figure 8** Right Side Retaining Screw Location

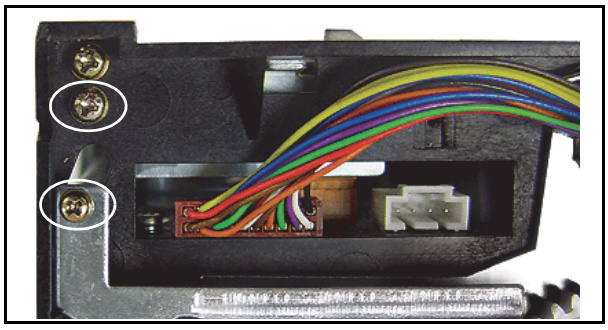


**Figure 9** Left Side Retaining Screw Locations

*NOTE: One (1) Screw secures a rod in place. Remove the rod.*

4. Remove the Bracket and Printed Circuit Board from the WBA.
5. Remove the Screw located at the corner of the Circuit Board.
6. Turn the bracket over and disconnect the WBA wiring harness from the Circuit Board.
7. Remove the two (2) screws securing the wiring Harness to the Bracket.
8. Attach the CPU Circuit Board to the new Bracket (Part No. 200-100411R) (See Figure 10).
9. Secure the wiring harness onto the new Bracket. Make sure to match the cut corners on the Receptacle with the new Bracket to obtain a proper fit and plug the Harness into the CPU board (See Figure 11).

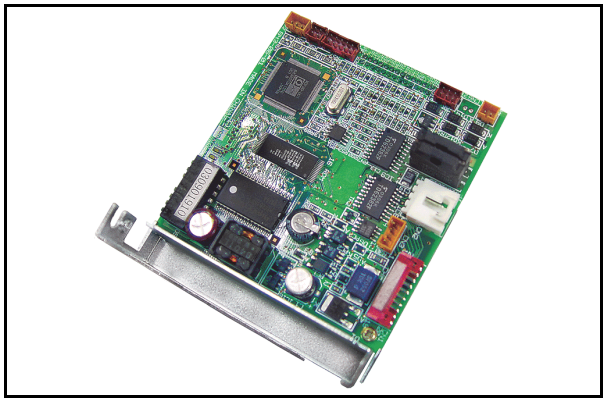


**Figure 10** New CPU Board with Bracket Attached

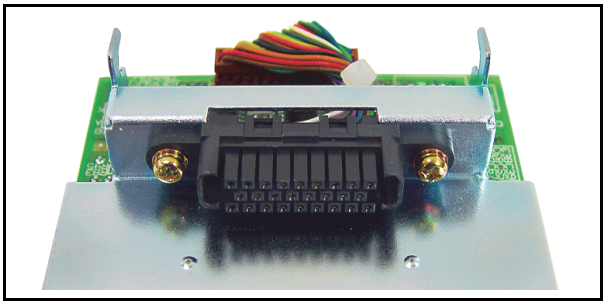


**Figure 11** CPU Board Bracket Harness Connector

10. Attach the Optical Interface Harness (JAC Part No. 400-100509R) to the Receptacle on the CPU Circuit Board (See Figure 12).

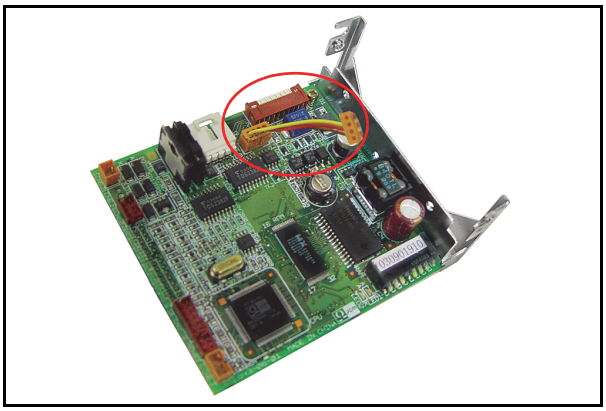


**Figure 12** Optical Interface Harness Attachment

11. Attach the upper Bracket (JAC Part No. 200-100734R) to the lower Bracket.
12. Mount the Optical Interface Board (JAC Part No. 300-100297R) onto the Bracket with the two (2) supplied screws (See Figure 13).
13. Re-install the Circuit Board into the Transport in reverse order of this procedure.


© 2012, Japan CashMachine Co., Limited

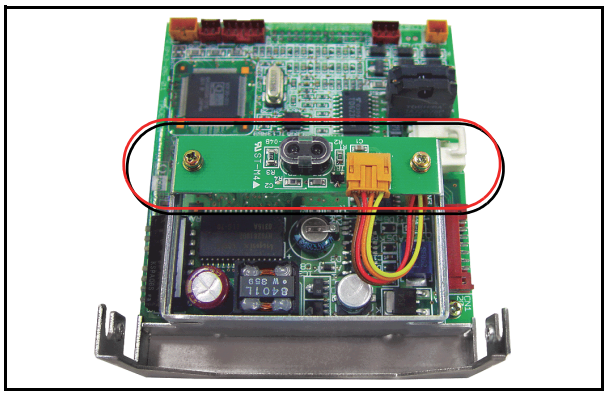


**Figure 13** Mounting the Optical Interface Board

# 6 New WBA-12/13/22/23-SS Retrofit Bracket

*NOTE: The following procedure is for retrofitting a new Version Processor Bracket only.*

To retrofit an new WBA-12/13-SS/WBA-22/23-SS Unit Processor Board Bracket, proceed as follows:

1. Remove the WBA from the Frame Assembly.
2. Turn the bottom of the WBA up to expose the Processor Circuit Board.

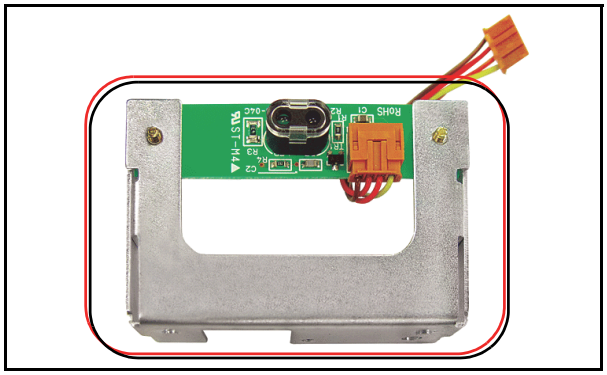


**Figure 14** New WBA ICB CPU Board Bracket

3. Plug the ICB Module Cable Connector into the Brown Socket Receptacle on the Processor Board.
4. Place the ICB Module onto the Front Bracket Assembly. The two (2) Alignment Pins will fit into the holes provided. Attach the Bracket with the Screw provided.

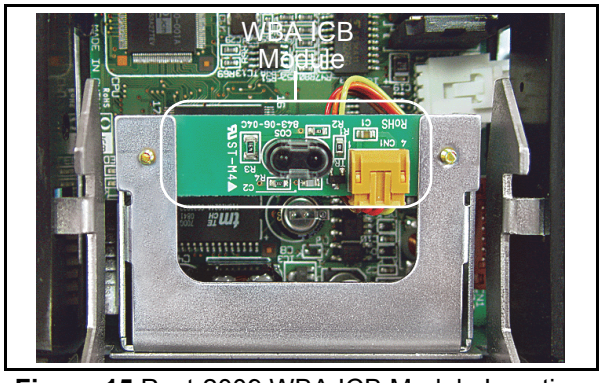



**Figure 15** Post-2009 WBA ICB Module Location

# 7 WBA-12/13/22/23-SU Retrofit

## Swivel Plate (F-swivel plate)

1. Remove the two (2) E-rings securing the Swivel Plate in place (See Figure 16 a).
2. Remove the screw securing the ground wire stand-off onto the side of the Transport, and remove the last E-ring (See Figure 16 b).

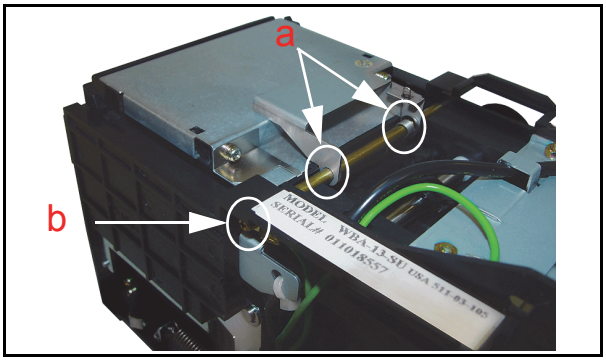



**Figure 16** Swivel Plate E-ring Removal

3. Slide the shaft out of the Transport to replace the existing swivel plate.
4. Place the black Mylar Sheet (Part No. 200-100730R) over the backside of the Optical Circuit Board (Part No. 300-100297R), and secure the board to the new Swivel Plate (Part No. 200-100729R). Make sure the Mylar Sheet is positioned as shown in Figure 17a.
5. Slide the rod back through, slipping the new Swivel Plate and Spring over it.
6. Replace the E-rings onto the Rod.

*NOTE: Remember that the stand-off Plate on the side of the Transport Unit goes under the E-ring.*

7. Secure the Harness (Part No. 400-100474R) onto the Swivel Plate with a Cable Tie before threading it to the Circuit Board. Tie it off on the Stand-off Plate (See Figure 18).

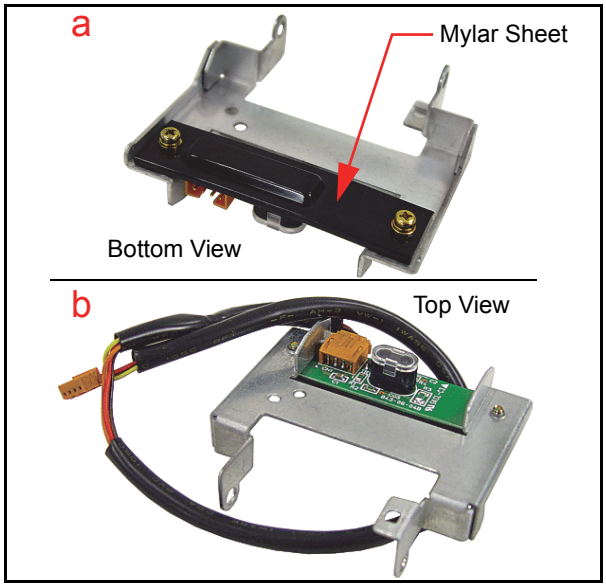



**Figure 17** Black Mylar Sheet Placement


© 2012, Japan CashMachine Co., Limited

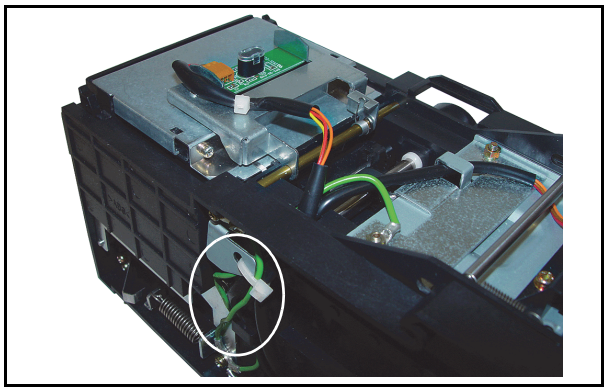


**Figure 18** Cable Tie Secured to Harness to Plate

# 8 UBA ICB Module

The ICB® Module plugs into the bottom of a UBA-10 CPU Circuit Board in a pre-2009 manufactured boards (See Figure 19) and secured in place under a Cover Plate held in down by two (2) Mounting Screws. It is mounted directly on the Processor Board in later manufactured Circuit Boards (See Figure 20).

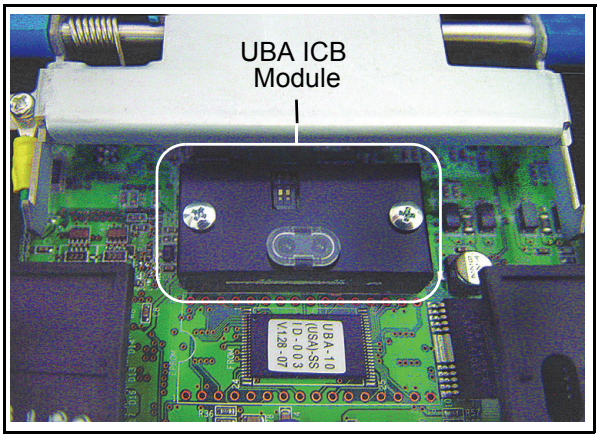



**Figure 19** Pre-2009 UBA ICB Module Location

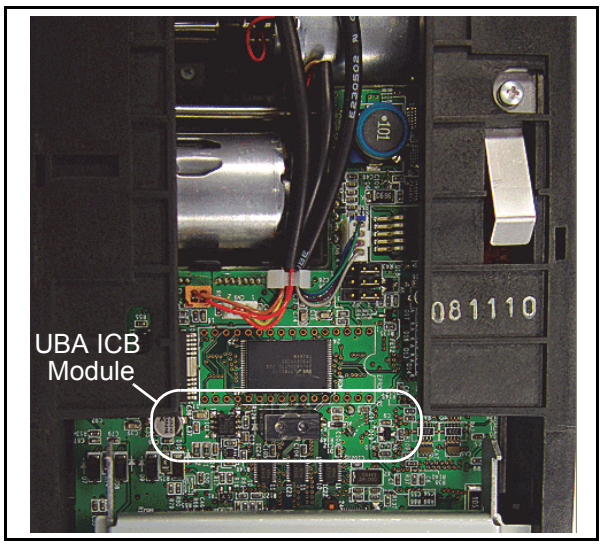



**Figure 20** Post-2009 UBA ICB Module Location

# 9 Software

*NOTE: The software is located on the CD supplied with the Kit, or can be ordered separately from JCM using JAC Part No. 501-000046.*

## The ICB CD

The Compact Disk (CD) contains the necessary Files required to set up the Machine Set Ticket Program, the Cash Box Numbering Program, plus two (2) Files showing how to convert a database spreadsheet to a .csv Format.

**Setup.exe**

- This program loads the ICB® Machine Set Ticket Program on your PC Hard Drive.

**Template.xls**

- If the Machine Set Numbers are stored in a database File, this Excel File displays the database formatting before converted it into a .csv Format. Excel and other database Files can be saved as .csv Files by Mouse-clicking on "Save As", and then selecting the .csv Format.

**Sample.csv**

- This is an example of how actual data will look in the .csv Format.

## ICB Print Ticket.cab

Place the CD supplied with the product into the Computer's CD Drive.

The program will run automatically after a few seconds delay.

- First, all of the necessary files are downloaded onto the PC Hard Drive.
- Second, the Machine Set Ticket Program is installed. Follow the instructions on the ICB TICKET Setup Screen when it appears as shown in Figure 21.

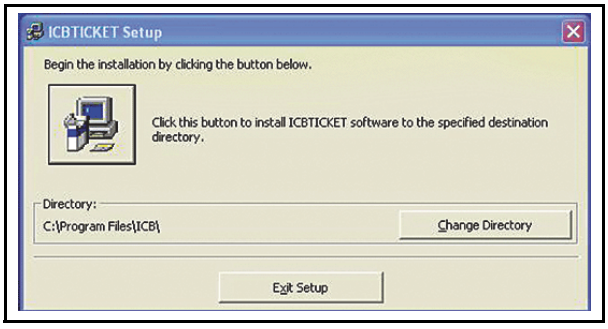

ICBTICKET Setup
Begin the installation by clicking the button below.
Click this button to install ICBTICKET software to the specified destination directory.
Directory:
C:\Program Files\ICB\
Change Directory
Exit Setup

**Figure 21** Initial ICB Ticket Setup Screen

Once the program is loaded, the Icon shown in Figure 22 will be placed on the Computer's Desktop Screen.

**Figure 22** ICB Set Ticket Select Icon


© 2012, Japan CashMachine Co., Limited

## Machine Number Set Ticket Procedure

1. Load Fan-fold Paper into the Printer Station, and attach the AC Power Cord.
2. Attach the 9-pin (female-to-female) Communications Cable to the RS-232 Port on the Printer Station, and connect the other end to an unused Serial Port on your PC.
3. Turn the Printer Station power ON.

   *NOTE: The ON/OFF switch is located on the back of the Printer Station.*
4. Double Mouse-click on the "ICB Ticket" Screen icon. The Figure 23 "IT Printer Simulation" Dialog Box will appear.

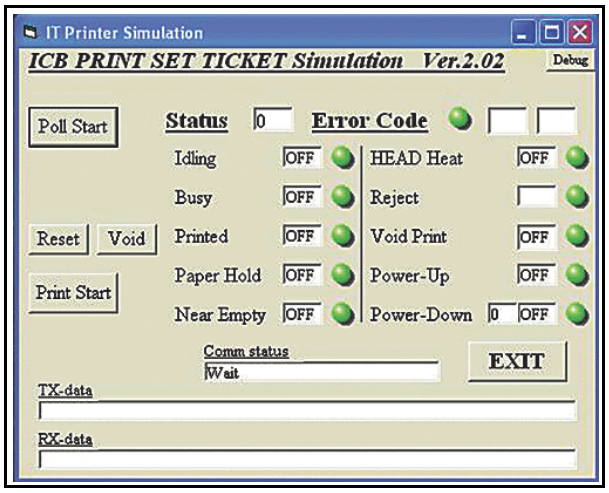



**Figure 23** IT Printer Simulation Dialog Screen

5. Mouse-click on the "**Poll Start**" Screen Button. This action will open up the "COM Setting" Screen shown in Figure 24.

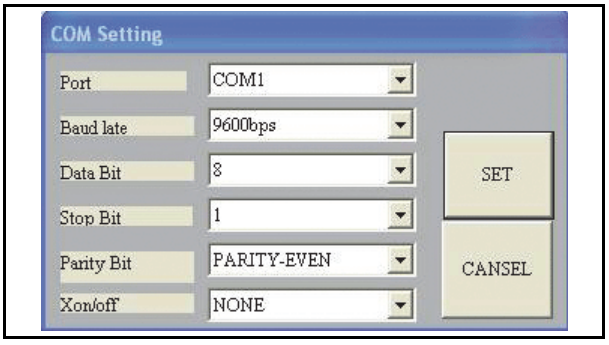



**Figure 24** COM Setting Screen

The only change necessary on this Screen could possibly be the COM Port setting in the **Port** pull-down Menu.

6. If no change is required, Mouse-click on the "**SET**" Screen Button. This action opens the primary "Ticket Format" Screen shown in Figure 25.

   *NOTE: The "Attr Bar-Code" Field must always show an "01" in its Window ( ICB Set Ticket Select Icon See Figure 25 a).*

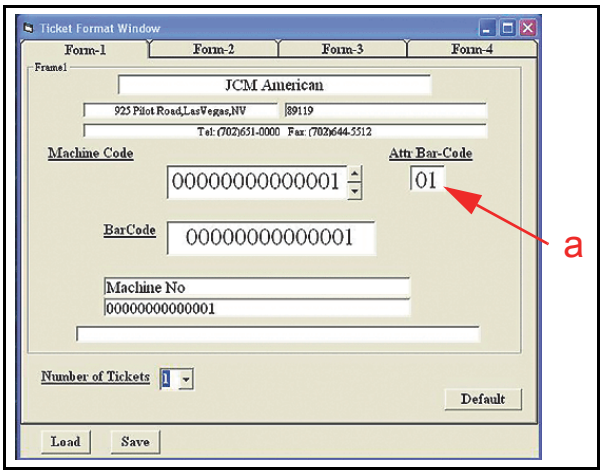



**Figure 25** Form 1 Ticket Format Screen

7. The following four (4) Forms are displayed by the "Ticket Format Window" Screen:
   - **Form-1**: This Form is used for creating individual Machine Tickets. The top portion of the Form is where the customer can enter specific information, such as Name, Address and Telephone Number.
     The Machine Code Section is where each Machine can be assigned a unique 14-digit Identification Number. The number can reflect the location, Asset number, et-cetera (Review Figure 25).
   - **Form-2**: This Form is used to manually establish a sequential series of Machine Number Tickets. However, the Customer Identification information must first be entered into Form-1 (See Figure 26 a).

     *NOTE: Leave the number shown in the "Number of Tickets" Screen at "1" unless multiple tickets for the same machine are required.*
   - With the power OFF, open the Printer and turn DIP Switch #1 to ON (See Figure 27). This is for printing sequential Tickets using the "Ticket Format" Sub-level Screen shown in Form-2 and Form-3.

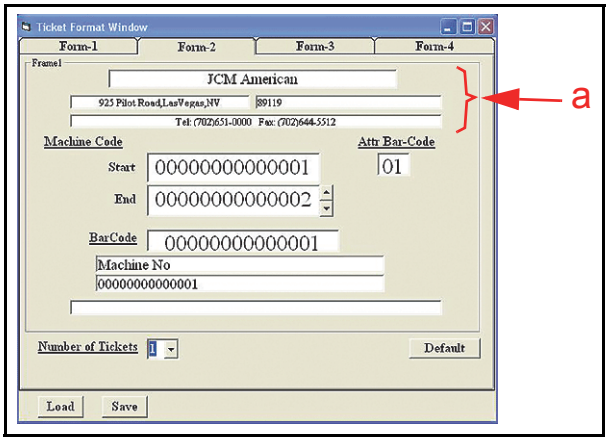



**Figure 26** Form 2 Ticket Format Screen


© 2012, Japan CashMachine Co., Limited

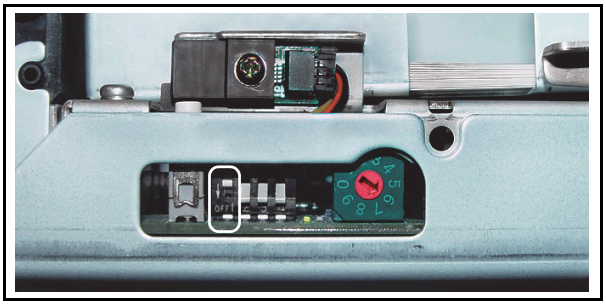


**Figure 27** Sequential Printing Switch Setting

– **Form-3**: Once a Microsoft® Excel (or other) Database File has been converted to the .csv Format, Mouse-click on the "**CSV file load**" Screen Button to download the File (See Figure 28 a).

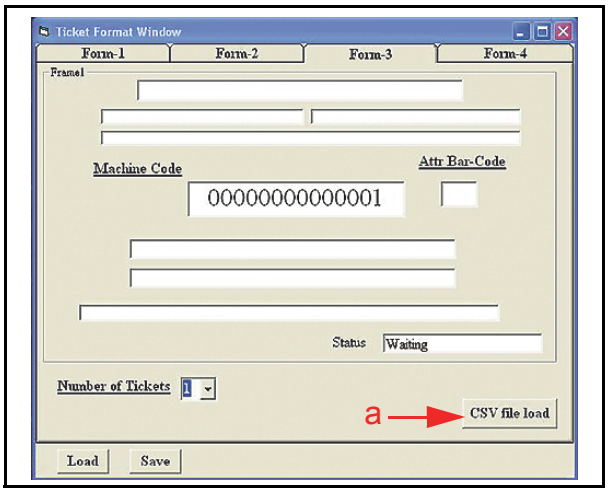



**Figure 28** Ticket Format Screen (Form 3)

*NOTE: Use the Sample file called "template.xls", to format the Database properly by entering as follows: "Template, description, ticket".*

1. A typical empty .csv Screen Ticket is shown in Figure 29.

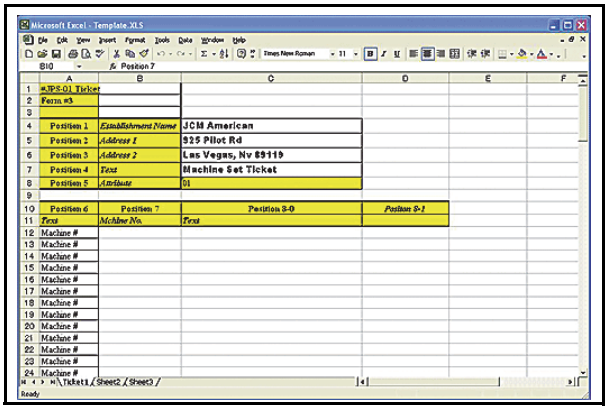
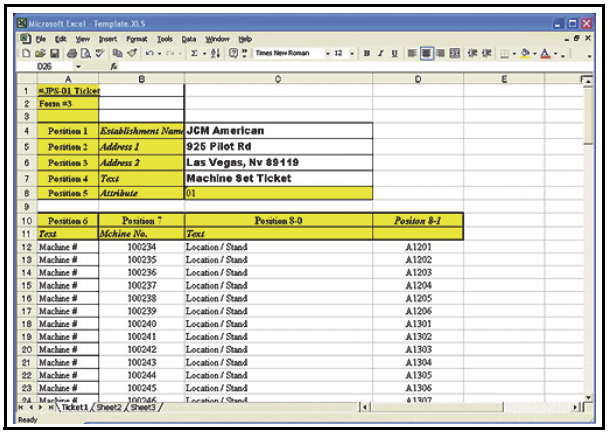


**Figure 29** Typical Empty CSV Information Screen

2. A typical filled-in .csv Screen Ticket is shown in Figure 30 with a description of its Fields listed below it.



| | | | |
|---|---|---|---|
| =JPS-01 Ticket | | | |
| Form #3 | | | |
| Position 1 | Establishment Name | JCM American | |
| Position 2 | Address 1 | 925 Pilot Rd | |
| Position 3 | Address 2 | Las Vegas, Nv 89119 | |
| Position 4 | Text | Machine Set Ticket | |
| Position 5 | Attribute | 01 | |
| Position 6 | Position 7 | Position 8-0 | Position 8-1 |
| Text | Machine No. | Text | |
| Machine # | 100234 | Location / Stand | A1201 |
| Machine # | 100235 | Location / Stand | A1202 |
| Machine # | 100236 | Location / Stand | A1203 |
| Machine # | 100237 | Location / Stand | A1204 |
| Machine # | 100238 | Location / Stand | A1205 |
| Machine # | 100239 | Location / Stand | A1206 |
| Machine # | 100240 | Location / Stand | A1301 |
| Machine # | 100241 | Location / Stand | A1302 |
| Machine # | 100242 | Location / Stand | A1303 |
| Machine # | 100243 | Location / Stand | A1304 |
| Machine # | 100244 | Location / Stand | A1305 |
| Machine # | 100245 | Location / Stand | A1306 |

**Figure 30** Filled-in CSV Information Screen

3. The .csv data entered in Figure 30 listed top to bottom is as follows:
   - Position 1 = Casino Name
   - Position 2 & 3 = Casino Address
   - Position 4 = Type of ticket
   - Position 5 MUST BE 01 for Machine Number Tickets and entered as a Text Format
   - Position 6 & 8-0 = text fields
   - Position 7 = the Asset number to be assigned to the Machine
   - Position 8-1= another text field.
4. Figure 31 illustrates the .csv data locations printed on a typical Machine Number Ticket.

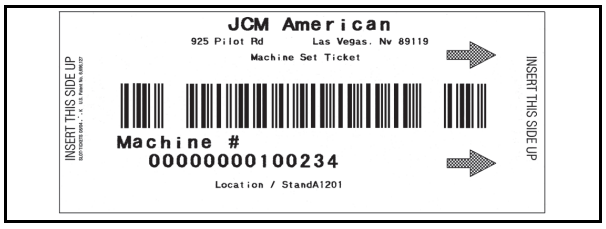



**Figure 31** Typical CSV Formatted Ticket Example

5. When saving the Excel Spreadsheet input data, select "Save as type: CSV" in the Pull-down menu shown active in Figure 32a.

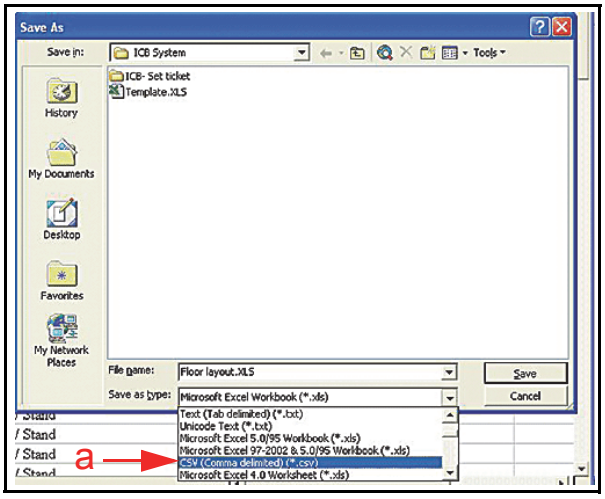



**Figure 32** Saving New CSV Information Type


© 2012, Japan CashMachine Co., Limited

6. When a .csv file is saved, two prompts will indicate "To save only the active sheet" and/or that "…csv may contain features that are not compatible with CSV (Comma Delimited)". When these particular warning Error Messages appear: Mouse-click the "OK" OK Screen Button, then on "YES" Yes (See Figure 33) to save the File for use by the Ticket Printing Program.

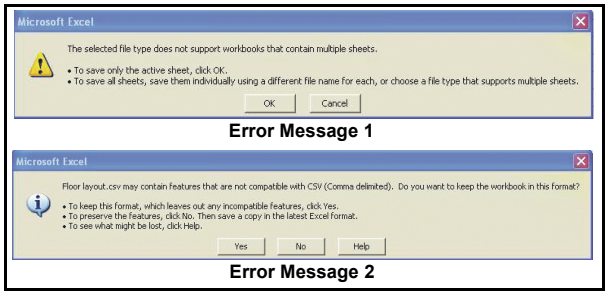

Microsoft Excel
The selected file type does not support workbooks that contain multiple sheets.
• To save only the active sheet, click OK.
• To save all sheets, save them individually using a different file name for each, or choose a file type that supports multiple sheets.
OK
Cancel
Error Message 1
Microsoft Excel
Floor layout.csv may contain features that are not compatible with CSV (Comma delimited). Do you want to keep the workbook in this format?
• To keep this format, which leaves out any incompatible features, click Yes.
• To preserve the features, click No. Then save a copy in the latest Excel format.
• To see what might be lost, click Help.
Yes
No
Help
Error Message 2

**Figure 33** Typical CSV Messages

– **Form-4**: This form is a test page that is not being used at this time.

## 10 ICB Enable/Disable Procedure

The ICB® function is controlled via an ENABLE or DISABLE Ticket. Use the "Set Ticket" Software along with the TPS-02 or PayCheck4 Printer, and insert the new Ticket into the Validator whenever the Bill Acceptor needs to be enabled or disabled. Use the ICB Print Set Ticket Program to create the ENABLE/DISABLE Tickets as follows:

1. Load fan-fold paper into the TPS-02/PayCheck4 Printer, and attach the AC Power Cord.
2. Attach one end of the 9-pin Communications Cable (female-to-female) to the RS-232 Port on the Printer, and attach the other end to an unused Serial Port on the PC Computer.
3. Turn the Printer power **ON**.

*NOTE: The ON/OFF switch is located on the back of the Printer Station.*

4. Double Mouse-click on the "ICB Ticket" Icon. This opens the "ICB Print Set Ticket Simulation" Screen shown in Figure 34.

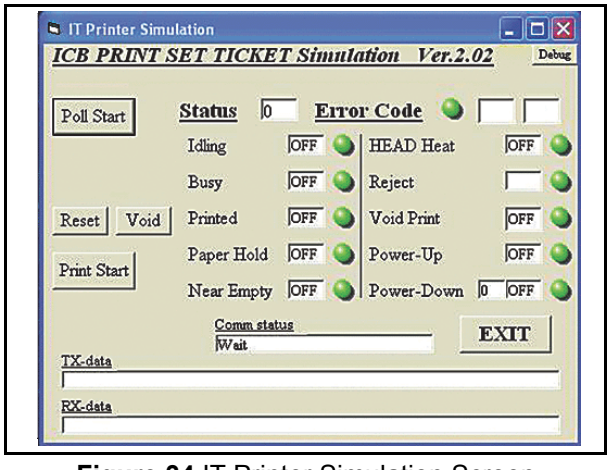



**Figure 34** IT Printer Simulation Screen

5. Mouse-click on the "**Poll Start**" Screen Button. This will open up the "COM Setting" Screen shown in Figure 35.

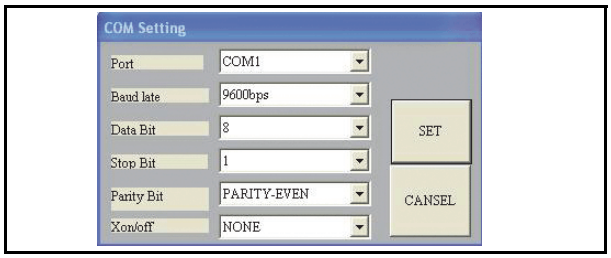



**Figure 35** COM Setting Screen

The only change necessary on this Screen could possibly be the COM Port setting in the **Port** pull-down Menu. If no change is required, Mouse-click on the "**SET**" Screen Button. This action opens the primary "Ticket Format" Screen shown in Figure 36.

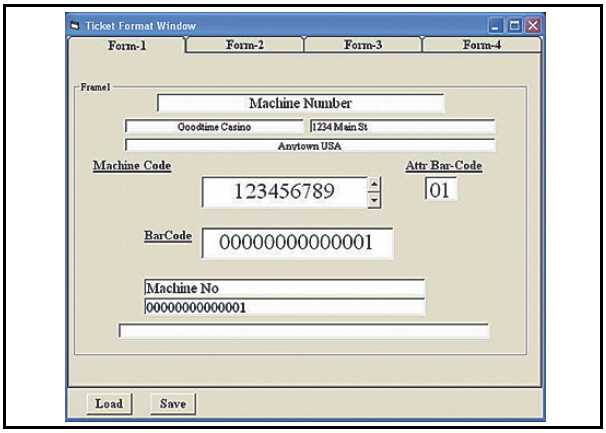



**Figure 36** Ticket Format Screen (Form 1)

*NOTE: See Section "29 Troubleshooting" on page 48 of this Service Manual for information regarding Formatting and Printing Enable/Disable & Asset Tickets.*

Modify Form -1 to create the ENABLE Ticket as follows:

1. Change the top title line by typing "ENABLE TICKET" into its Field (See Figure 37). Change the **Attr Bar-Code** to 03; and Change the **Machine Code** Screen to all Ones (1111111...).

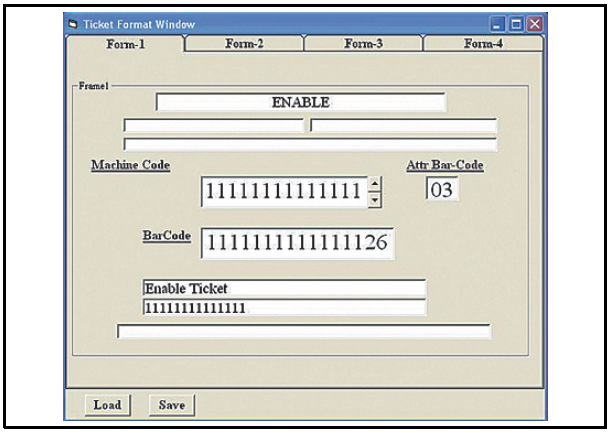



**Figure 37** "Enable Ticket" Typed in Form 1 Screen


© 2012, Japan CashMachine Co., Limited

2. Return to the ICB Print Set Ticket Simulation Screen and print a Ticket as described in the following To Print Tickets Section.

## To Print Tickets

1. Leave the Ticket Format Screen open.
2. Make the ICB® Print Set Ticket Screen the active Screen.
3. Mouse-click on the "**Reset**" Screen Button, then click on "**Print Start**" to print Tickets.
   If the program locks up, use the "**Reset**" Screen Button to recover.

   *NOTE: If the paper runs out during the printing process, simply open the Printer and reload more paper.*
4. Use the same procedure to create a DISABLE Ticket. Type "DISABLE TICKET" in the title line Field, and change the **Attr Bar-Code** to 02. Make sure the **Machine Code** Screen reads all Zeros (0000000...) (See Figure 38).

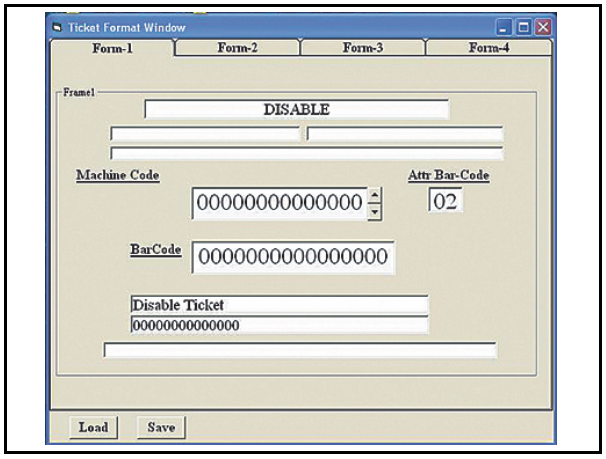



**Figure 38** "Disable Ticket" Typed in the Form 1 Screen's Text Entry Field

## To Enable ICB In The WBA/UBA Validator

Once the Machine Number Tickets are printed for all Machines, the Tickets must be individually inserted into the appropriate Machines to set their particular Machine Number's into the Validator. With the power OFF, proceed as follows:

1. Set Validator DIP Switches 1, 3 and 8 to ON.
2. Apply power to the Validator.
3. Insert a Machine Number Ticket as shown in Figure 39. While the Ticket is held in the Validator, the Bezel lights will flash rapidly. The Ticket will then be returned and the flashing lights will go out.

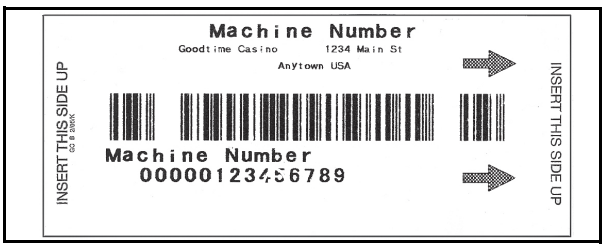



**Figure 39** Typical Machine Number Ticket

4. Insert an ENABLE Ticket as shown in Figure 40. While the Ticket is held in the Validator, the Bezel lights will flash rapidly. The Ticket will then be returned and the flashing lights will go out.

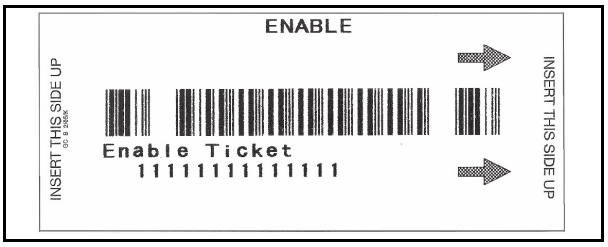



**Figure 40** Enable Ticket Example

## To Disable ICB In a Validator

1. With the power off, set Validator DIP Switches 1, 3 and 8 to ON.
2. Apply power to the Validator and insert a DISABLE Ticket as shown in Figure 41.

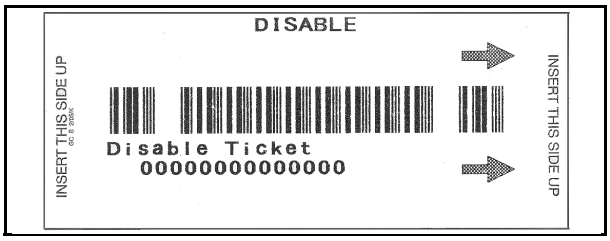



**Figure 41** Disable Ticket Example

While the Ticket is held in the Validator, the Bezel lights will flash rapidly. The Ticket will then be returned and the flashing lights will go out. Once this operation is finished, reset the Validator DIP Switches to their normal position and recycle power OFF/ON.

# 11 UBA Diagnostic Error Codes for an ICB

If an error exists in the ICB® System components, the unit will display an error code during the Initialization process. This error display occurs when the machine is first turned on, or when the door is closed causing the Validator to reset. Table 1 lists the malfunctions and their causes. Most errors cannot be addressed on the Casino Floor and require the Cash Box be returned to the Soft Count Room for processing.
Example: Error 15 in Table 1 indicated the IR Receiver/Transmitter on the Validator is malfunctioning and needs to be replaced.
Table 1 on page 11 lists the possible Initialization LED Error Codes that can exist when a fault condition occurs during the initialization of a UBA Validator.

*NOTE: If the Diagnostic LED status is different from the error states listed in Table 1, contact JCM.*


© 2012, Japan CashMachine Co., Limited

**Table 1** ICB Initialization Errors

| LED Status | | Error | Causes and Solutions |
|---|---|---|---|
| Red LED | Green LED | | |
| 3 Flashes | OFF | ICB Module | Intelligent Cash Box (ICB) Disabled/Cash Box is Active. |
| 11 Flashes | OFF | ICB Module | Intelligent Cash Box (ICB) Communications Error (Failure Type 02). |
| 12 Flashes | OFF | ICB Module | Intelligent Cash Box (ICB) Check Sum Error (Failure Type 07). Memory partially cleared. |
| 13 Flashes. | OFF | ICB Module | Intelligent Cash Box (ICB) Installed with data from another machine (i.e., data not cleared) (Failure Type 08)*. |
| 14 Flashes | OFF | ICB Module | Intelligent Cash Box (ICB) not initiated (Failure Type 09). Memory not properly cleared. |
| 15 Flashes | OFF | ICB Module | Intelligent Cash Box (ICB) Module Error (Failure AF). No ICB Module detected present on Validator. |

# 12 iVIZION ICB Enable/Disable Procedure

Two methods exist for setting up ICB on an iVIZION Validator.

**Method 1** – Using the Utility Function for ICB Set-up:

1. Use a Male "A" to mini-"B" USB Cable to connect the iVIZION to a PC, and ensure power is applied to the iVIZION Unit.
2. Open the JCM Tool Suite Application shown in Figure 42.

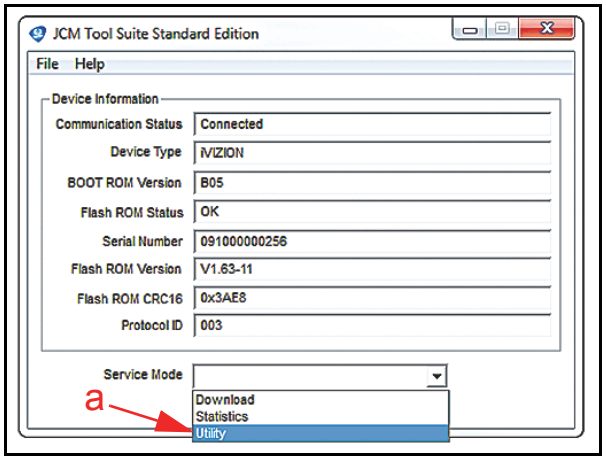



**Figure 42** JCM Tool Suite Standard Edition Start-up Screen

3. Use the Service Mode drop-down Arrow, to Mouse-click select "Utility" from the Menu (See Figure 42 a).
4. Once in the iVIZION Utility Tool, Mouse-click select "2) ICB SETTING" from the Menu and Figure 43 will appear.

To Enable ICB proceed as follows:

1. To Enable ICB, Mouse-click on the "Enable" Screen Button (See Figure 43 a).
2. Enter a Machine Number into the White Text Field located next to the "Set MC" Screen Button in the **M/C #** block area (See Figure 43 b).
3. Mouse-click on the "Set MC" Screen Button (See Figure 43 c).
4. Insert a Cash Box that has been previously initialized on a Read/Write Tool.

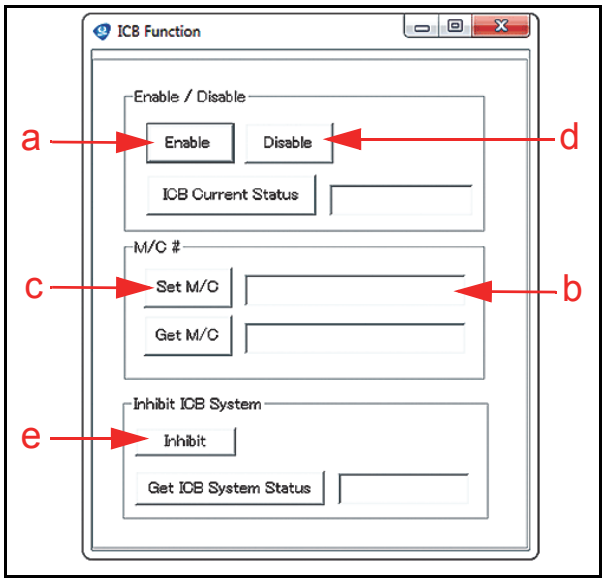



**Figure 43** ICB Utility Tool Function Screen

To Disable ICB proceed as follows:

1. Disable ICB by Mouse-clicking on the "Disable" Screen Button (See Figure 43 d).
2. If an ICB Enabled Cash Box is installed, Mouse-click on the "Inhibit" Screen Button located in the **Inhibit ICB System** block area (See Figure 43 e).

**Method 2** – Using the Set Ticket Application in the JCM Tool Suite for ICB Set-up:

1. Place the iVIZION into Diagnostic Mode, by turning DIP Switch #8 ON.
2. Insert the iVIZION Unit into a Frame with Power applied, and the Blue LED on the iVIZION Unit will light.
3. Connect the iVIZION Unit to a PC using a Male "A" to mini-"B" USB Cable.
4. Open the Tool Suite Application (Figure 44 on page 12).
5. Mouse-click on the Service Mode drop-down Arrow and select "Performance Test" from the available list (See Figure 44 a).


© 2012, Japan CashMachine Co., Limited

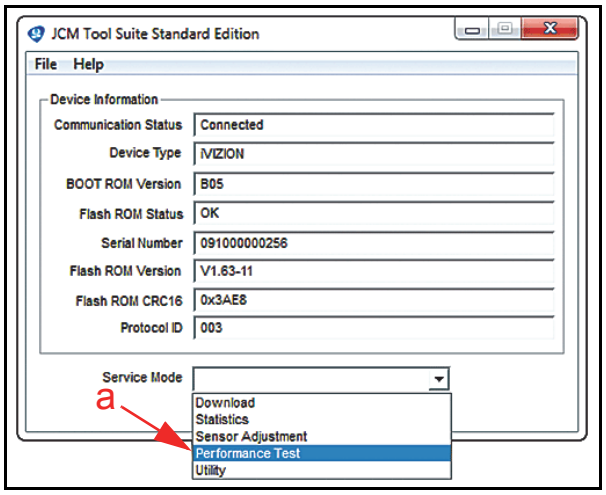



**Figure 44** JCM Tool Suite Standard Edition Service Mode Selection Screen

6. On the iVIZION "Test Item" Screen that appears, Mouse-click on the "ICB Control Ticket Read Mode" Screen Button (See Figure 45 a).

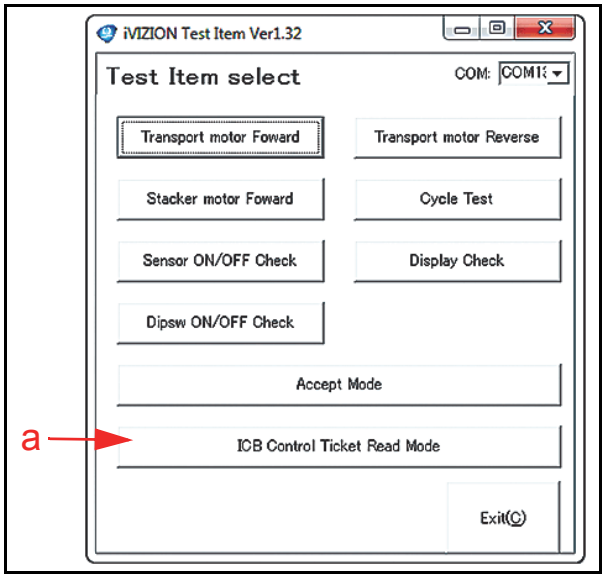



**Figure 45** iVIZION Test Item Screen

7. Mouse-click on the "Start" Screen Button located on the "ICB Setting" Screen that appears (See Figure 46 a).

To Enable ICB proceed as follows:

1. Enable ICB by inserting an ICB Enable Ticket into the iVIZION Unit as previously described in this Section of the Service Manual.
2. Set the Machine Number by inserting a Machine Number Ticket into the iVIZION Unit.
3. Mouse-click on the "Stop" Screen Button located on the "ICB Setting" Screen to complete the procedure (Review Figure 46 b).
4. Insert a Cash Box that has been previously initialized on a Read/Write Tool.

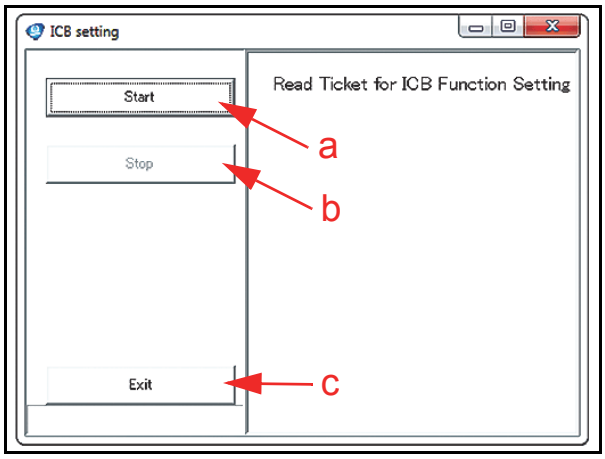



**Figure 46** ICB Settings Screen

To Disable ICB proceed as follows:

1. Disable ICB by insert a ICB Disable Ticket as previously described in this Section of the Service Manual.
2. Exit out of the JCM Tool Suite Application by Mouse-clicking on the "EXIT" Screen Button (Review Figure 46 c).
3. On the iVIZION Unit, turn DIP Switch #8 OFF.

This completes the iVIZION ICB Set-up Procedures.

# 13 MDM2 Program Operation

## Soft Count

The Multi-Download Module Program (MDM) is used in the Soft Count Room.

During the Soft Drop process, the Intelligent Cash Box is removed from the Bill Validator and 'docked' to an ICB Read-Write Tool (also referred to as a Read/Write Tool in other documents).

The Read/Write Tool is connected via Serial Port to a Host PC which is used by the MDM program to store data files.

The Read/Write Tool downloads the data from the Cash Box and transmits the information to a locally connected Printer Station (which generates a Ticket with the Machine ID number in Bar Code Format).

The Read/Write Tool then re-initializes the Cash Box data fields to Zero, at which point the ICB Cash Box is ready to be reinstalled again into any compatible Machine.

The MDM Program collects the transaction data from the Read/Write Tool, and writes it into a text file for subsequent use by the ICB Web Reports Application.

Versions of the Multi-Download Module program prior to 2.0 were referred to as MDM. Versions 2.0 and higher feature enhanced graphics, additional program options, and a more user-friendly interface. The newer application is referred to as MDM2.


© 2012, Japan CashMachine Co., Limited

## Working with MDM 2

For most customers, the MDM2 Program probably came pre-installed on the Soft Count Room PC Computer. If so, the program may be started by Mouse-clicking the "JCM MDM" Icon on the desktop.

Refer to the paragraph titled "Starting the MDM2 Program" located on page 16 of this Service Manual for further user instructions.

If the MDM2 Program needs to be installed follow the instructions provided below:

To install the MDM2 Program, proceed as follows:

1. The MDM2 program is included with the ICB System Software provided to the Customer. Locate and copy the MDM2 File onto the Soft Count Room Computer.
2. If the file is in a 'Zipped' Format, use the Mouse to right-click and extract the files into a corresponding MDM2 Folder on the PC.
3. In the unzipped MDM2 Folder, select and run the "**Setup.exe** Setup" File (See Figure 47 a).

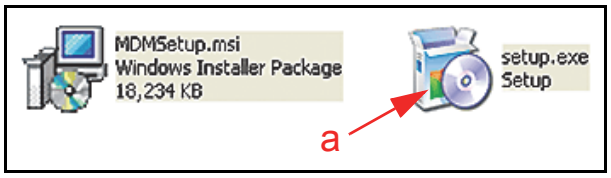



**Figure 47** MDM Set-up File

4. When the "**Welcome**…" Screen appears, Mouse-click on the "Next>" Next > Screen Button (See Figure 48 a) to continue.

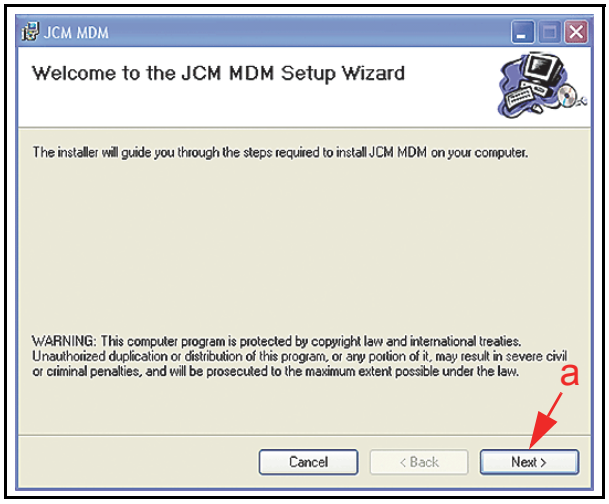

JCM MDM
Welcome to the JCM MDM Setup Wizard
The installer will guide you through the steps required to install JCM MDM on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >
a

**Figure 48** JCM MDM Installer Welcome Screen

5. The "**Select Installation Folder**" Screen will appear, and a default location for the program installation will be indicated in the "Folder:" Text Entry Field (See Figure 49 a).
   If desired, the "Browse…" Browse... Screen Button (See Figure 49 b) may be used to select an alternate installation location.

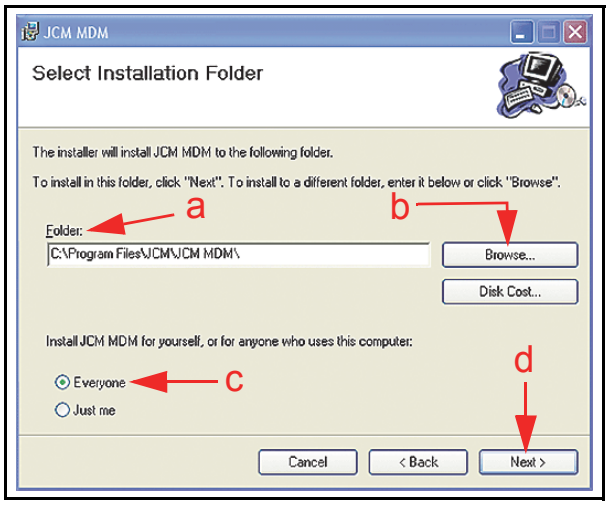



**Figure 49** Select Installation Folder Screen

6. Once the install location has been decided, verify that the "Everyone" Radio Button ◉ has been selected (See Figure 49 c), and then Mouse-click on the "Next>" Next > Screen Button (See Figure 49 d) to continue.
7. The "**Confirm Installation**" Screen will now appear. Mouse-click on the "Next>" Next > Screen Button (See Figure 50 a) here to continue.
8. The "**Installing JCM MDM**" Screen will then appear. During program installation, a filling Blue Barograph as shown in Figure 51a on page page 14 will indicate the progress of the installation process.

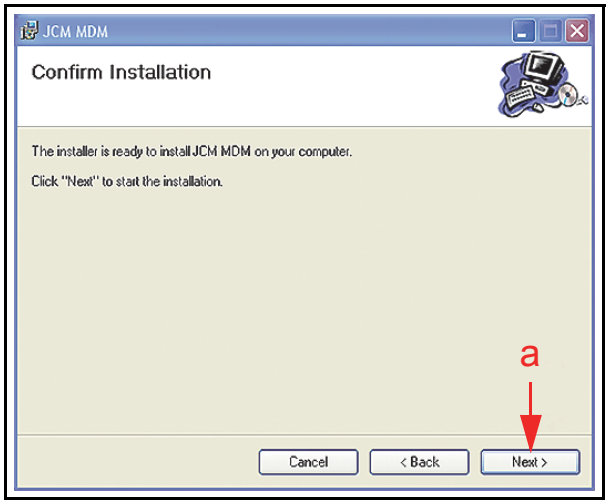



**Figure 50** Confirm Installation Screen

9. When the installation is complete, the "Installation Complete" Screen will appear as shown in Figure 52 on page 14. Mouse-click on the "Close" Close Screen Button (See Figure 52 a) to complete the installation process.


© 2012, Japan CashMachine Co., Limited

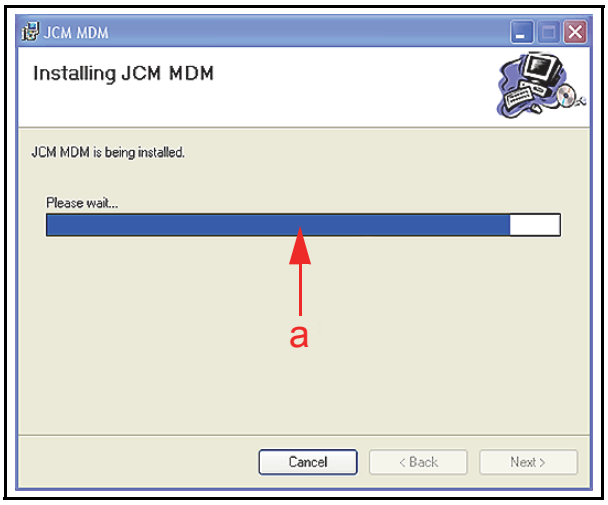



**Figure 51** Installing JCM MDM Screen

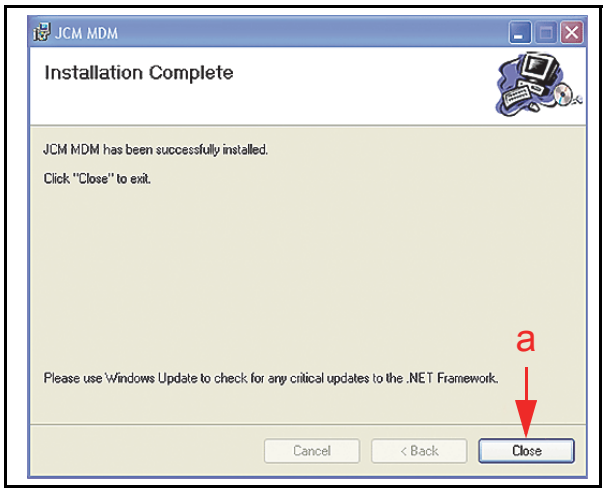



**Figure 52** Installation Complete Screen

## Program Registration

Some versions of the MDM2 Program need to be registered with JCM prior to use. If MDM2 Version 2.2.X (e.g., the Prime Static Version) is being used, registration is not required, and the MDM2 Program is ready to run immediately after installation by Mouse-clicking on the proper JCM MDM Desktop Icon.

If using MDM2 Version 2.5.X (e.g., the Subscription Version) however, registration IS required. In most cases, a JCM Representative will pre-Register the Application for the Customer prior to on-site delivery of the PC containing the Application. If not, MDM2 Registration may be completed as follows:

Registration may be completed either **Automatically** or **Manually**.

- For installations where the Host PC HAS an active Internet connection, follow the instructions provided below for 'Automatic Registration'.
- For installations where the Host PC DOES NOT have an active Internet connection, follow the instructions below provided for 'Manual Registration'.

## AUTOMATIC REGISTRATION

To activate the Automatic Registration Mode, proceed as follows:

1. Mouse-clicking the "JCM MDM" desktop shortcut Icon.

2. The Automatic "**Registration**" Screen shown in Figure 53 will appear.

Registration
JCM GLOBAL
Welcome to MDM. Please register MDM by filling out the necessary information and clicking the "Register" button. The information as well as the current version of MDM will be transmitted to JCM.
a
License Key
b
Register
Exit

**Figure 53** Automatic Registration Screen

*NOTE: If the* **'Registration'** *Screen that appears does not look like the one shown in Figure 53 (but looks like the one shown in Figure 55 instead); the Computer did not properly detect an active Internet Connection, and the Registration process will need to be completed manually. If this is the case, perform the instructions provided for Manual Registration that follow.*

3. Enter the MDM License Key provided by JCM into the 'License Key' Text Entry Field (See Figure 53 a), and then Mouse-click on the **'Register'** Register Screen Button (See Figure 53 b).
4. The program will automatically Register the program with JCM, complete the activation process, and display the MDM2 Program Login Screen to the user as shown in Figure 54. The MDM2 Program is ready for use once the User Name, Password and Login Login Screen Button is Mouse-clicked.

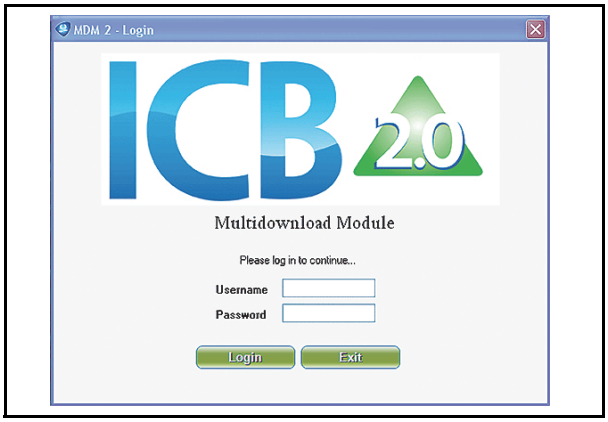



**Figure 54** MDM2 Login Screen 1


© 2012, Japan CashMachine Co., Limited

## MANUAL REGISTRATION

To activate the Manual Registration Mode, proceed as follows:

1. Mouse-click on the "JCM MDM" desktop shortcut Icon.

2. The Manual "**Registration**" Screen shown in Figure 55 will appear.
3. Mouse-click on the JCM MDM2 program activation link (See Figure 55 a).

Registration
JCM GLOBAL
Welcome to MDM. To continue you will need to register MDM.
Please visit the registration site by following the link below and you will be able to obtain a registration key.
http://icb.jcmglobal.com/IcbLicensing/activation.aspx
MDM ID: XXXXXX-XXXXXX
Activation Key:
Register
Exit
a

**Figure 55** Manual Registration Screen

*NOTE: If the link doesn't work, or if it is necessary to activate the program at a later time, or from another PC, the activation Website may be accessed directly at the following internet address: http://icb.jcmglobal.com/IcbLicensing/activation.aspx.*

4. When the JCM Product Activation Screen appears, enter the License Key provided by JCM into the 'Activation Key' Text Entry Field (See Figure 56 a).

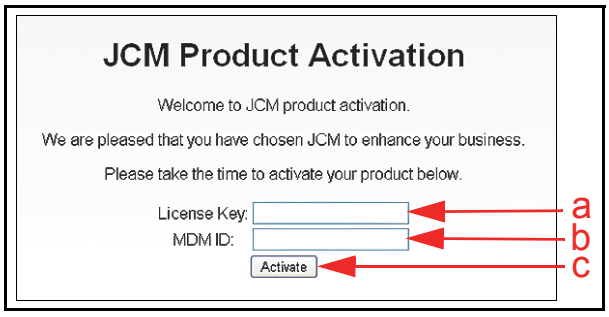



**Figure 56** JCM Product Activation Screen

5. Enter the 12-character MDM ID Number provided into the 'MDM ID' Text Entry Field (See Figure 56 b).

*NOTE: Each MDM ID Code is unique to each MDM program installed. The Code may be found on the MDM2 Manual Registration Screen (Review Figure 55 b).*

6. When the License Key and MDM ID Code have been entered into the Activation Screen, Mouse-click on the 'Activate' Activate Screen Button (See Figure 56 c). The Website will then register the program.
7. The JCM Product Activation Screen will then update, providing both the new MDM program Activation Key, and a message indicating the number of days the program will actively exist (See Figure 57 a & b).

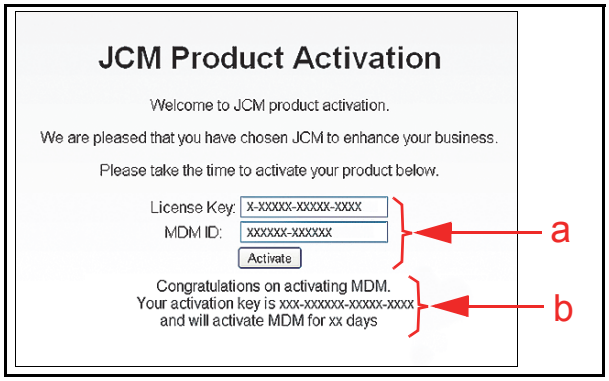

JCM Product Activation
Welcome to JCM product activation.
We are pleased that you have chosen JCM to enhance your business.
Please take the time to activate your product below.
License Key: X-XXXXX-XXXXX-XXXX
MDM ID: XXXXXX-XXXXXX
Activate
Congratulations on activating MDM.
Your activation key is xxx-xxxxxx-xxxxx-xxxx
and will activate MDM for xx days
a
b

**Figure 57** Obtain Product Activation Key Screen

8. Enter the Activation Key Number into the 'Activation Key' Text Entry Field in the MDM2 Registration Screen (See Figure 58 a), and Mouse-click on the '**Register**' Register Screen Button (See Figure 58 b) to continue.
9. If the Activation process is successful, the user will automatically be taken to the MDM2 Program Login Screen shown in Figure 59. The MDM2 program is ready for use once the User Name, Password and Login Login Screen Button is Mouse-clicked.

Registration
JCM GLOBAL
Welcome to MDM. To continue you will need to register MDM.
Please visit the registration site by following the link below and you will be able to obtain a registration key.
http://icb.jcmglobal.com/IcbLicensing/activation.aspx
MDM ID: XXXXXX-XXXXXX
Activation Key: XXX-XXXXXX-XXXXX-XXXX
Register
Exit
a
b

**Figure 58** Activation Key Entry Screen

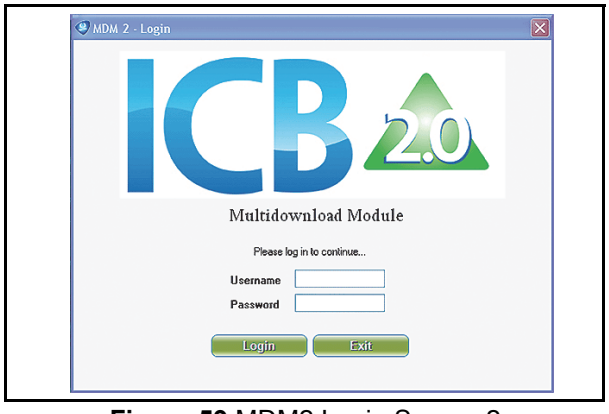



**Figure 59** MDM2 Login Screen 2


© 2012, Japan CashMachine Co., Limited

*NOTE: If a typographical entry or other error occurs during Activation, the pop-up Dialog Screen message shown in Figure 60 will appear. Re-enter the Activation Key again, or contact JCM for further assistance if the problem persists.*

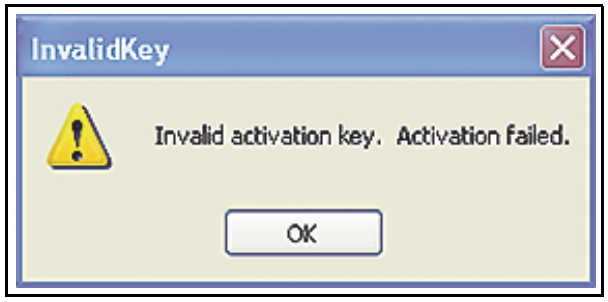



**Figure 60** Activation Failed Dialog Screen

## Starting the MDM2 Program

*NOTE: Before starting the MDM2 Program, ensure that the Date and Time displayed on the PC Desktop is correct. This "Time Stamp" is used for all timed activity in the MDM/ICB System!*

To start the MDM2 Program proceed as follows:

1. Mouse-click on the JCM MDM desk-top shortcut Icon.
2. The MDM2 Program Login Screen shown in Figure 61 will appear.
3. Enter the User Name into the 'User-name' Text Entry Field (See Figure 61 a).

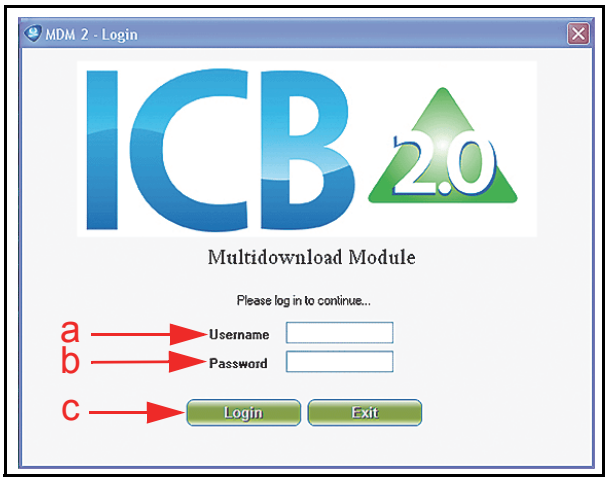



**Figure 61** MDM2 Login Screen 3

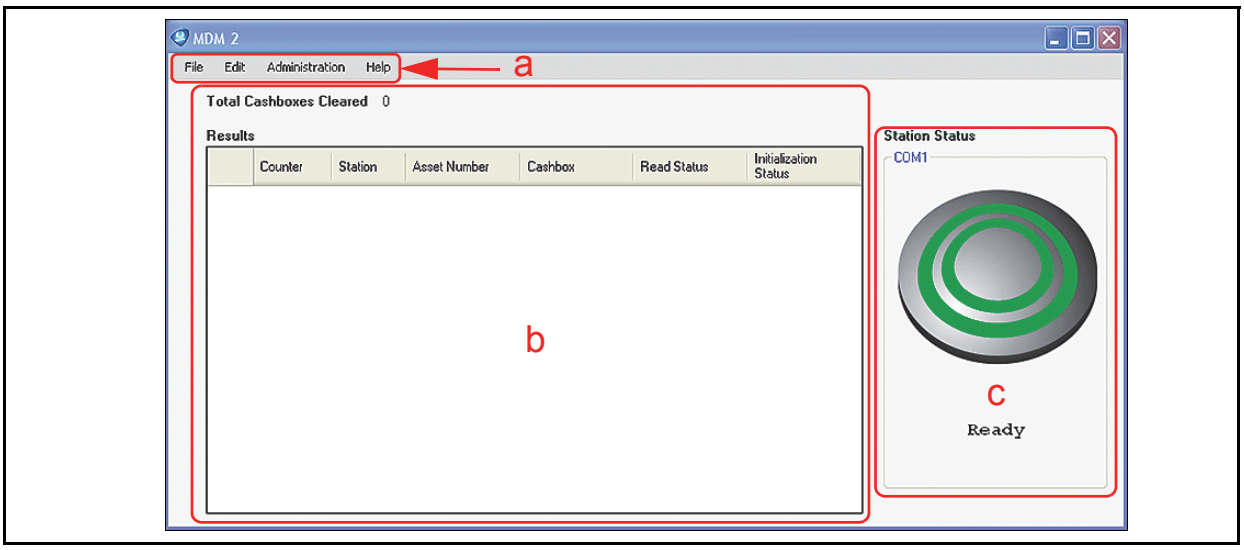



**Figure 62** MDM2 Main Screen

4. Enter the User Password into the 'Password' Text Entry Field (See Figure 61 b).
5. Press '**ENTER**' ENTER on the PC Keyboard or Mouse-click on the '**Login**' Login Screen Button located on the Application Login Screen (See Figure 61 c) to continue.
6. When logged in, the MDM2 Main Screen will appear as shown in Figure 62.

## MDM2 Main Screen

The MDM2 Main Screen shown in Figure 62 is divided into the following three (3) operational sections:

- The top portion of the Screen (See Figure 62 a) provides various pull-down Menus which allow enabling or changing MDM2 operating Parameters and Programming Options.
- The left side of the Screen (See Figure 62 b) provides information and the status of various ICB enabled Cash Boxes docked to an active Read-Write Tool during the Soft Drop process.
- The right side of the Screen (See Figure 62 c) provides real-time Graphic images that indicate the operational status of all attached Read-Write Tools, as-well-as indicating the operational progress during a Cash Box reading and initialization procedure.


© 2012, Japan CashMachine Co., Limited

# MDM2 Access & User Permissions

## Adding a User

To add an MDM2 User, proceed as follows:

1. Mouse-click on the 'Administration' pull-down Menu on the MDM2 Main Screen, and select 'Users' from the list (See Figure 63 a).
2. When the MDM 2 Users Screen appears, Mouse-click on the 'Add' Add Screen Button (See Figure 64 a).

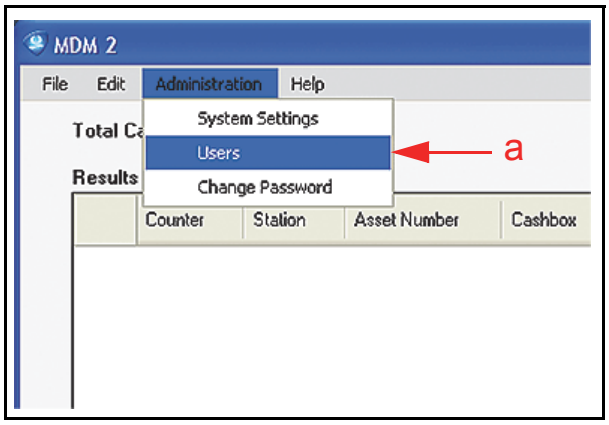



**Figure 63** Select User Function Menu 1

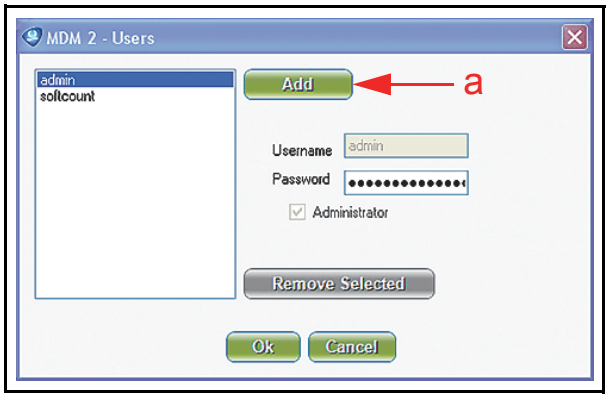



**Figure 64** Add New User Selection Screen

3. When the 'New User' Dialog Screen appears (See Figure 65 a), enter a name for the user being added into the Username Text Entry Field; then Mouse-click on the 'OK' OK Screen Button (See Figure 65 b).

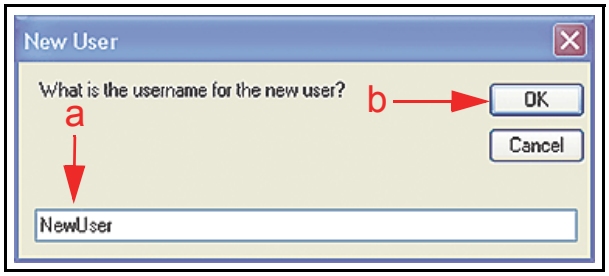



**Figure 65** Enter User Name Dialog Screen

4. The new User will be added to the System, to the list of Users (See Figure 66 a), and to the Username Text Entry Field (See Figure 66 b) when updated.
5. Enter a Password for the new user in the 'Password' Text Entry Field (See Figure 66 c).
6. If the new User will need to add or remove any Users and/or change any System settings, Mouse-click on the 'Administrator' Check-Box (See Figure 66 d).

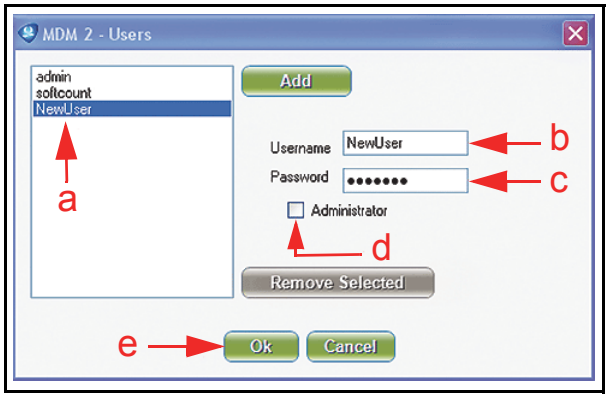



**Figure 66** New User Modification Selection Screen

7. Mouse-click on the '**Ok**' Ok Screen Button (See Figure 66 e) to update the System and exit back to the MDM2 Main Screen.

## Deleting a User

*NOTE: To delete a User you must be logged in as an Administrator!*

To delete a User from MDM2 proceed as follows:

1. On the MDM2 Main Screen, Mouse-click on the 'Administration' pull-down Menu and select 'Users' from the list (See Figure 67 a).

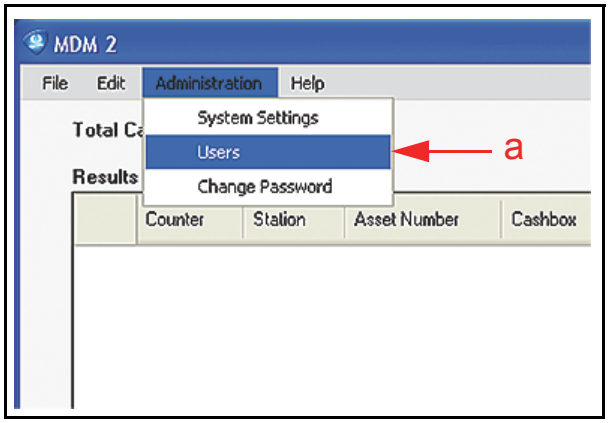



**Figure 67** Select User Function Menu 2

2. The MDM2 Users Screen will appear. From the list of users shown (See Figure 68 a) Mouse-click on the User Name that is to be deleted.

*NOTE: When a User Name is selected, the '**Remove Selected**' Screen Button (See Figure 68 b) will be colored Green and enabled. The User Name of '**admin**' is a default User Name and cannot be removed from the MDM2 Program. If '**admin**' is selected, the '**Remove Selected**' Screen Button will remain Grayed-out and be disabled. The '**Remove Selected**" Screen Button is only enabled when removing actual User's Name when colored Green.*


© 2012, Japan CashMachine Co., Limited

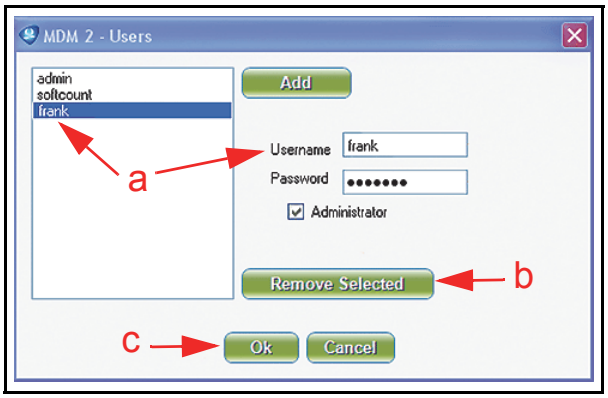



**Figure 68** Delete a User Selection Screen

3. Mouse-click on the Green '**Remove Selected**' Remove Selected Screen Button (See Figure 68 b) to remove the selected User from the System. The User Name will then be removed from the list of Users at Figure 68a.
4. Mouse-click on the '**Ok**' Ok Screen Button (See Figure 68 c) to exit back to the MDM2 Main Screen.

### CHANGE USER PASSWORD

*NOTE: Passwords can be changed by either the Administrator or the individual User.*

To change an MDM2 User Password proceed as follows:

1. On the MDM2 Main Screen, Mouse-click on the 'Administration' pull-down Menu and select 'Change Password' from the list (See Figure 69 a). The '**Change Password**' Screen will appear as shown in Figure 70.

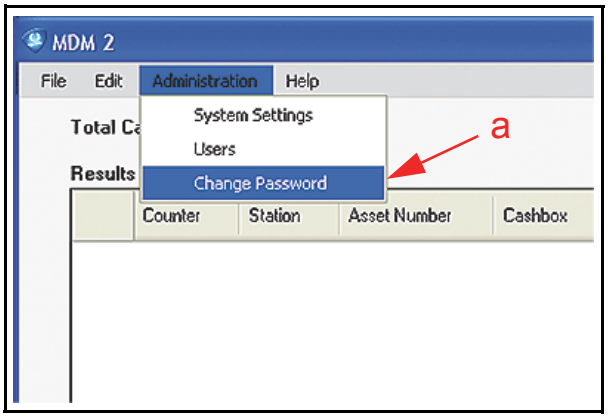



**Figure 69** Select Change Password Menu

2. Enter the Users' current Password into the 'Old Password' Text Entry Field (See Figure 70 a).
3. Enter the new Password into the 'New Password' Text Entry Box (See Figure 70 b).
4. Verify the new password by entering it again into the 'Reenter New Password' Text Entry Field (See Figure 70 c).
5. Mouse-click on the '**Change Password**' Change Password Screen Button (See Figure 70 d) to set the new Password.

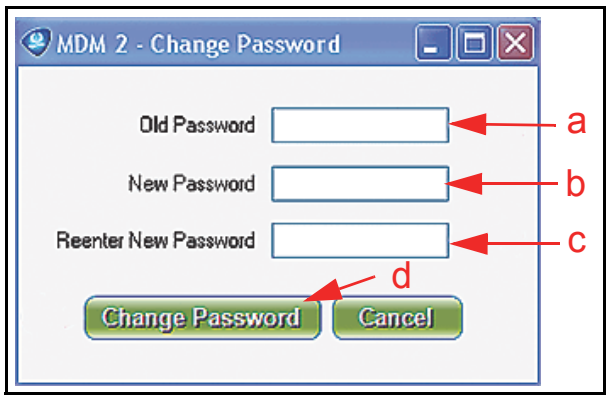



**Figure 70** Change Password Entry Screen

6. If a typing error occurs, or an invalid Password is entered, the message shown in the Figure 71 Dialog Screen will appear.
   Mouse-click on the 'OK' OK Screen Button (See Figure 71 a). The System will return to the Password Entry Screen so that a different Password can be entered if desired.

**Figure 71** Invalid Password Dialog Screen

## 14 Setting MDM Communication Ports

MDM2 is capable of supporting multiple Read-Write Tools. In order for the MDM2 Program to read a Read-Write Tools properly, a PC COM Port needs to be identified and assigned for each Read-Write Tool connected to the System. To set the MDM2 Communication Ports proceed as follows:

1. On the MDM2 Main Screen, Mouse-click on the 'Administration' pull-down Menu and select 'System Settings' from the list (See Figure 72 a).
2. When the '**System Settings**' Screen appears, Mouse-click on the 'Serial Ports' Tab (See Figure 73 a) to display the current Serial Port Configuration information.

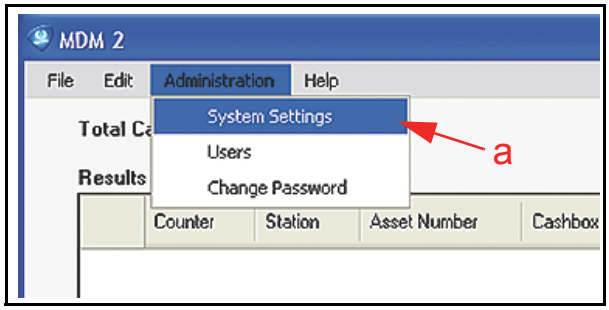



**Figure 72** Select System Settings Menu 1


© 2012, Japan CashMachine Co., Limited

The 'In Use' Box shown in Figure 73b displays a list of the PC COM Ports currently in use. Since each Read-Write Tool requires a separate COM Port for it's communication, the number of COM Ports listed here indicate the number of Read-Write Tools presently connected to the System.

*NOTE: The 'Available' Box (See Figure 73 c) displays a list of PC COM Ports that are available on the Host PC, but are not currently in use.*

3. To place another COM Port in use on MDM2, Mouse-click on, and select one of the available COM Ports listed in the 'Available' Box (See Figure 73 c). Mouse-click on the left Arrow Screen Button < (See Figure 73 d). The selected COM Port will move left and now be listed in the 'In Use' Box (See Figure 73 b).

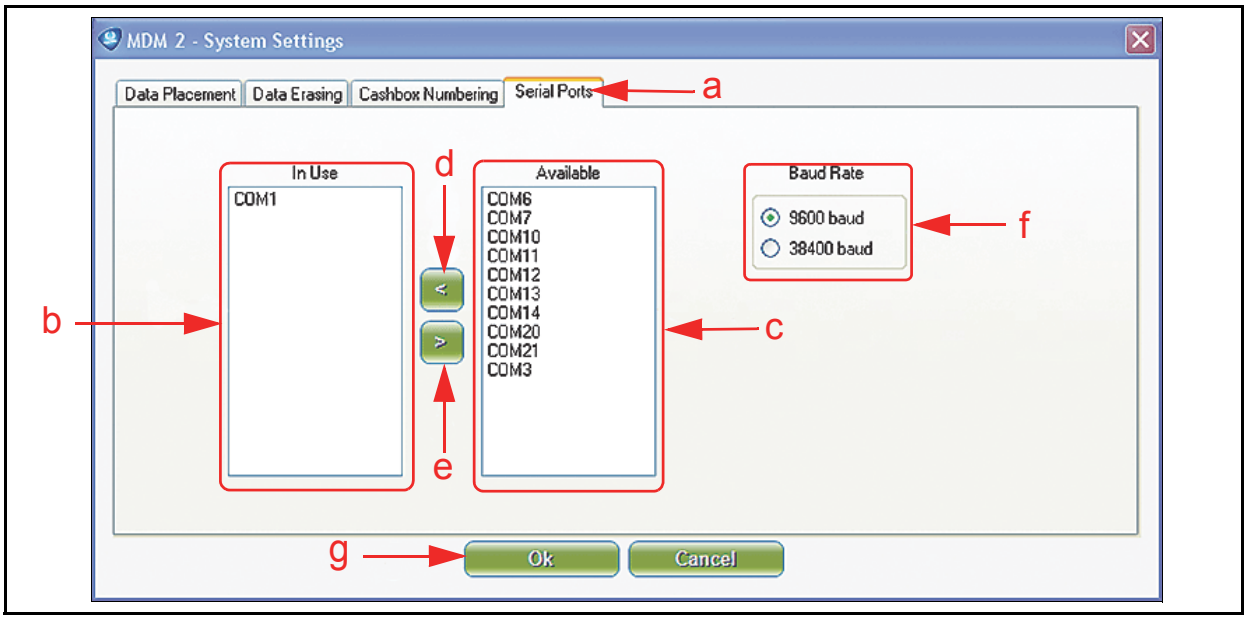



**Figure 73** System Settings Serial Ports Selection Screen

4. To remove a COM Port currently in use, Mouse-click and select it from the 'In Use' Box (Review Figure 73 b). Mouse-click on the right Arrow Screen Button > (See Figure 73 e). The selected COM Port will move back to the 'Available' Box at right (Review Figure 73 c).
5. The System Baud Rate (See Figure 73 f). determines the speed at which the Host PC and the connected Read-Write Tools communicate with each other. Mouse-click on the appropriate Radio Button to select the desired Baud Rate (9600 or 38400 Baud).
6. When the COM Port settings have been set as desired, Mouse-click on the '**Ok**' Ok Screen Button (See Figure 73 g) to return to the MDM2 Main Screen.

## 15 Setting MDM Cash Box Numbers

During the Cash Box Docking process the MDM2 Program will assign a new Cash Box Number to any Cash Box which does not have a number, or is found to have a missing or corrupted number during the docking process. To set the Cash Box starting number proceed as follows:

1. On the MDM2 Main Screen, Mouse-click on the 'Administration' pull-down Menu and select 'System Settings' (See Figure 74 a).

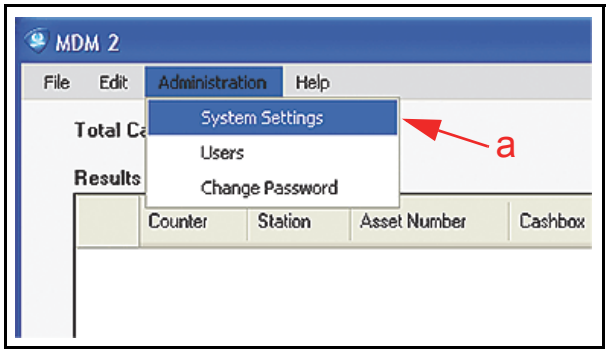



**Figure 74** Select System Settings Menu 2

2. When the '**System Settings**' Screen appears, Mouse-click on the 'Cashbox Numbering' Tab (See Figure 75 a).
3. In the 'Start assigning cashbox numbers from' Text Entry Field (See Figure 75 b) enter a starting number.

   When the MDM2 Application encounters a Cash Box that needs a new Number, it will automatically assign the next sequentially available number to it based on the starting number entered.


© 2012, Japan CashMachine Co., Limited

*NOTE: Ensure that the starting number entered into the Text Field is higher than any existing Cash Box number presently in use. This will help prevent duplicate Cash Box numbers from showing up in the System.*

4. Once a suitable starting number has been entered, Mouse-click on the '**Ok**' Ok Screen Button (See Figure 75 c) to return to the MDM2 Main Screen.

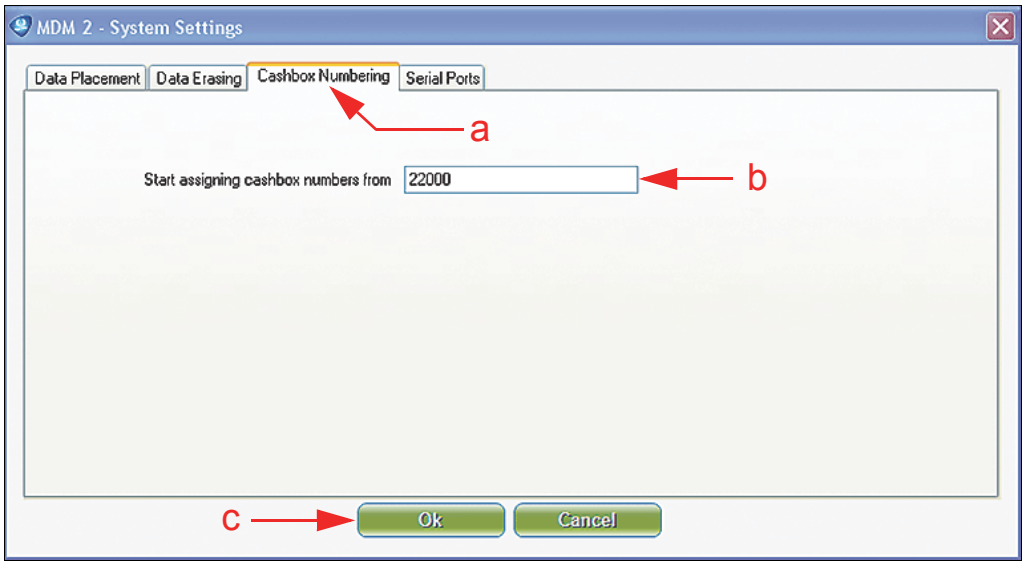



**Figure 75** Cash Box Numbering Assignment Screen

## 16 Setting an MDM Data Location

The MDM2 Program saves the data it reads from each Cash Box to an assigned Data Folder on the Host PC. If desired, the user may change the default Folder's storage location, or may add additional storage locations to the PC as a means of automatic backup. To view, change, or add data storage Folder locations proceed as follows:

1. On the MDM2 Main Screen, Mouse-click on the 'Administration' pull-down Menu and select 'System Settings' from the list (See Figure 76 a).
2. The Data Placement Screen shown in Figure 78 should appear. If it does not, Mouse-click on the 'Data Placement' Tab (See Figure 78 a).

*NOTE: The default data storage location used by MDM2 is 'C:\data' and is automatically specified in the list of Data Placement Directories (See Figure 78 b).*

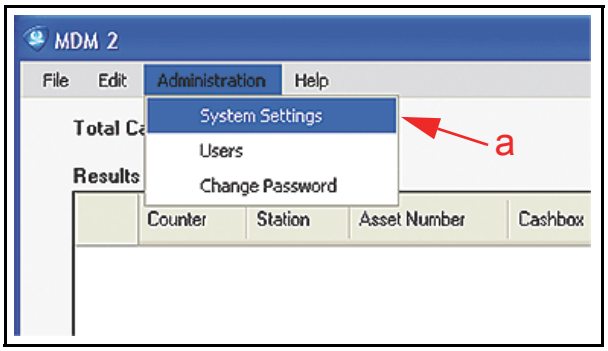



**Figure 76** Select System Settings Menu 3

3. To add an additional data storage location, Mouse-click on the 'Add' Add Screen Button (See Figure 78 c on page 21). The 'Browse For Folder' Screen shown in Figure 77 will appear. The user may select an existing Folder (See Figure 77 a), or create a new Folder by Mouse-clicking on 'Make New Folder' Make New Folder Screen Button (See Figure 77 b). When the desired Folder storage location has been specified, Mouse-click on the 'OK' OK Screen Button (See Figure 77 c). The additional data storage location will be added to the Data Placement Directory.

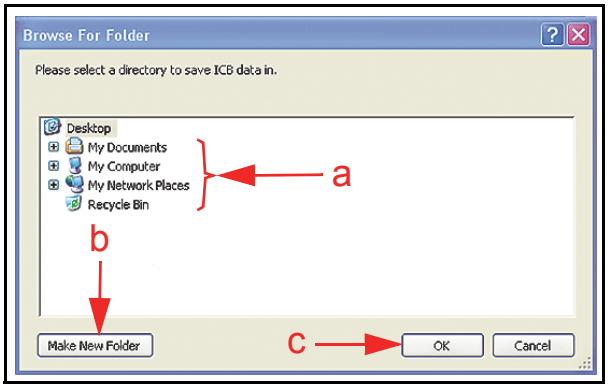



**Figure 77** Folder Browse Selection Screen

When the desired Folder storage location has been specified, Mouse-click on the 'OK' OK Screen Button (See Figure 77 c). The additional data storage location will be added to the Data Placement Directory.


© 2012, Japan CashMachine Co., Limited

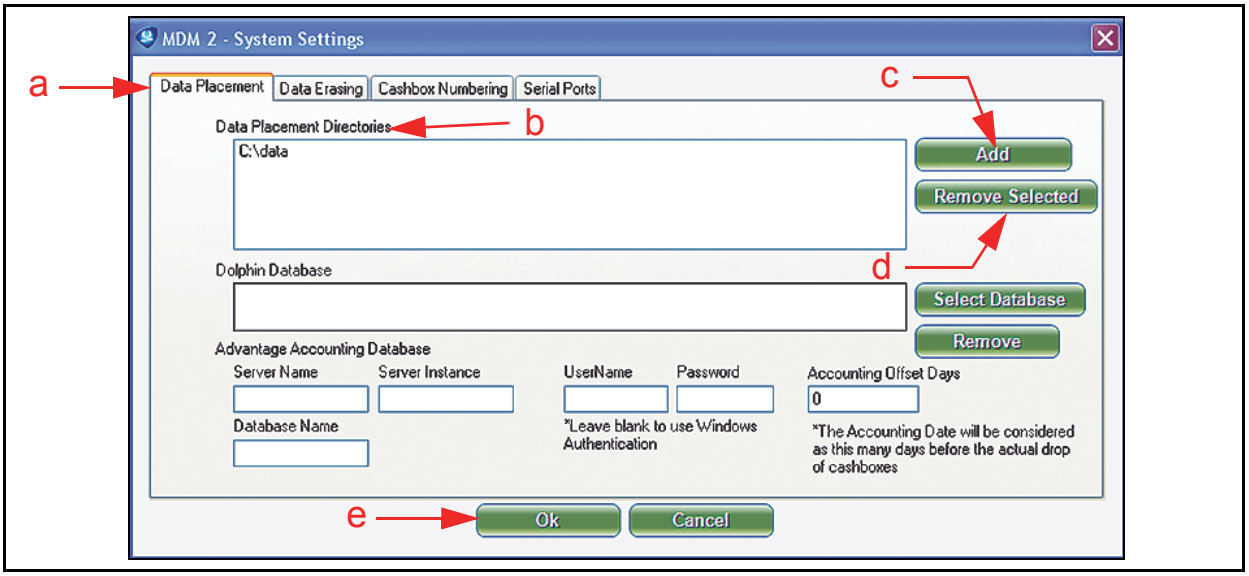



**Figure 78** Data Folder Placement Screen

4. To remove an existing data storage location, Mouse-click on its Name in the list of 'Data Placement Directories' (See Figure 78 b) and Mouse-click on the 'Remove Selected' Remove Selected Screen Button (See Figure 78 d). The selected location will be removed from the storage location.
5. When finished with either adding or removing data storage locations, Mouse-click on the '**Ok**' Ok Screen Button (See Figure 78 e) to return to the MDM2 Main Screen.

# 17 Setting a Dolphin Data Location

For customers who use the IGT Advantage System (prior to Version 8.2, Service Pack 6) to track their Cash Boxes, MDM2 provides the capability to save Data Files in a format compatible with a Dolphin filing System. To set the Dolphin Database File storage location, proceed as follows:

1. On the MDM2 Main Screen, Mouse-click on the 'Administration' pull-down Menu and select 'System Settings' from the list (See Figure 79 a).

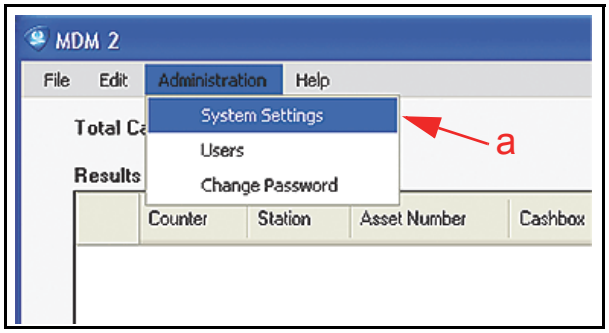



**Figure 79** Select System Settings Menu 4

2. The Figure 81 Data Placement Screen should appear. If it does not, Mouse-click on the 'Data Placement' Tab (See Figure 81 a) and then Mouse-click on the 'Select Database' Select Database Screen Button (See Figure 81 b).
3. The Select Database Screen shown in Figure 80 on page 21 will appear.\
4. Mouse-click to select a Dolphin Database File in the JCM MDM Folder (a typical example is shown in Figure 80 a).

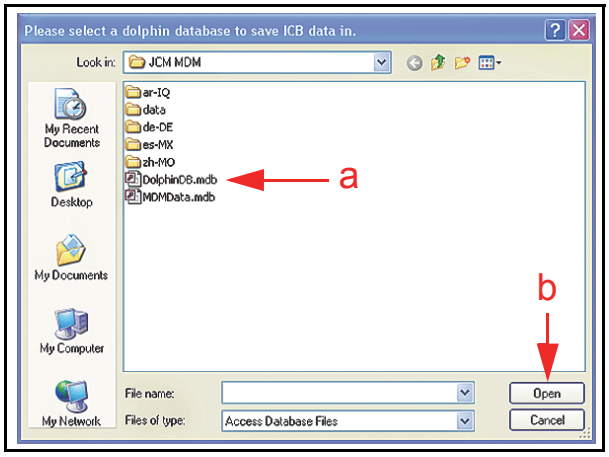



**Figure 80** Selecting Dolphin Data Base File

5. Mouse-click on the 'Open' Open Screen Button (See Figure 80 b) to return to the Figure 81 Data Placement Screen. The selected Dolphin Database location will be shown in the 'Dolphin Database' Text Entry Field (Review Figure 81 c).
6. Mouse-click on the '**Ok**' Ok Screen Button (Review Figure 81 e) to return to the MDM2 Main Screen.

*NOTE: The Dolphin File location may be changed at any time by first Mouse-clicking on the '**Remove**' Screen Button (See Figure 81 d) to remove the location currently showing in the Dolphin Database Text Field, and then Mouse-clicking on 'Select Database' (See Figure 81 b) to re-start the selection process again.*


© 2012, Japan CashMachine Co., Limited

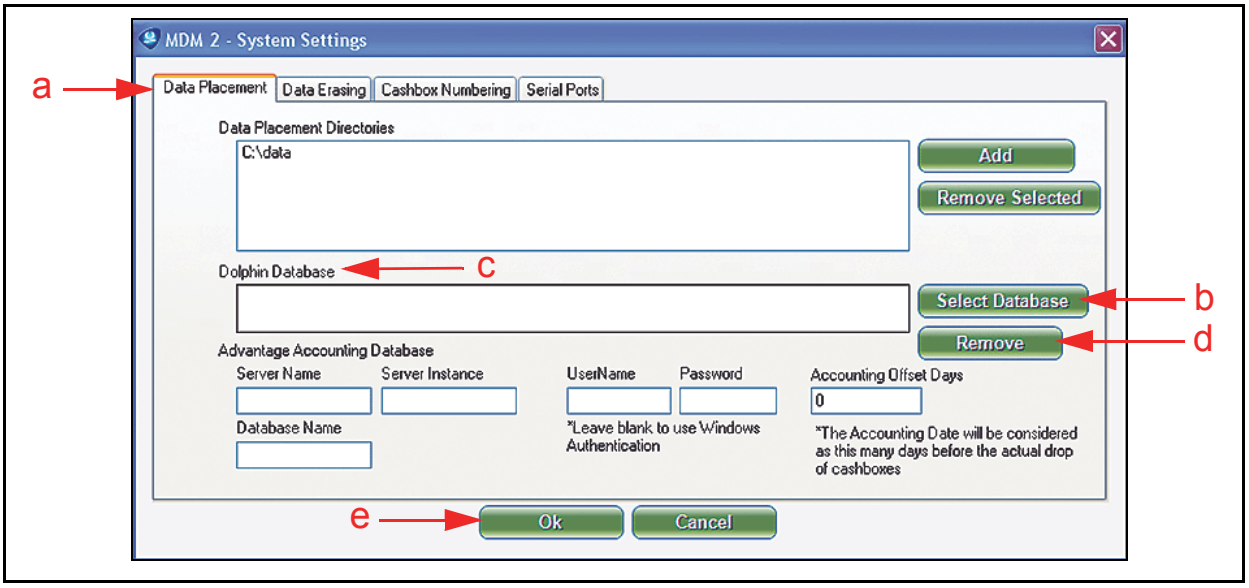



**Figure 81** Specifying a Dolphin Database Screen

## 18 IGT Advantage System

For customers using the IGT Advantage System (Version 8.2 Service Pack 6 and newer), the MDM2 Program provides the capability to save data files in a SQL Server compatible Format. To set the proper parameters proceed as follows:

1. On the MDM2 Main Screen, Mouse-click on the 'Administration' pull-down Menu and select 'System Settings' (See Figure 82 a) from the list.

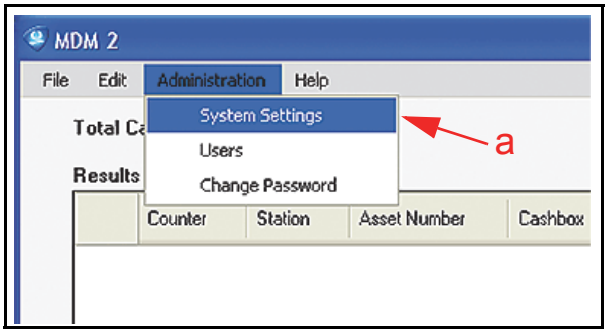



**Figure 82** Select System Settings Menu 5

2. The Data Placement Screen shown in Figure 83 should appear. If it doesn't, Mouse-click on the 'Data Placement' Tab (See Figure 83 a).
3. In the 'Server Name' Text Entry Field (See Figure 83 b) enter the name of the PC/Server where the SQL database resides.
4. In the 'Database Name' Text Entry Field (See Figure 83 c) enter the Name of the SQL Database File where the ICB data will be written (e.g., Drop Utility).
5. In the 'Server Instance' Text Entry Field (See Figure 83 d) enter the SQL Server Instance Name. If no name is assigned, leave this Field empty.
6. For installations where SQL Server Authentication is in use, enter the appropriate User Name and Password into the 'User Name' (see Figure 82 e) and 'Password' (See Figure 83 f) Text Entry Fields.

   *NOTE: To use Windows Authentication, leave the User Name and Password Text Entry Fields empty.*

7. The 'Accounting Offset Days' Text Entry Field (See Figure 83 g) allows for entering the number of days that elapsed before the Cash Boxes from "today gaming day" are sent to the Count Room for docking during the Drop Cycle.

   *NOTE: A value of Zero (0) entered here would indicate that the 'gaming day' is the same day as the 'drop date'; and a value of One (1) entered here would indicate that the 'gaming day' was one day before the 'drop date'.*

   Enter the appropriate 'Accounting Offset Days' Value in the 'Accounting Offset Days' Text Entry Field (Review Figure 83 g).
8. Mouse-click on the 'OK' (See Figure 83 h) Screen Button to return to the MDM2 Main Screen.


© 2012, Japan CashMachine Co., Limited

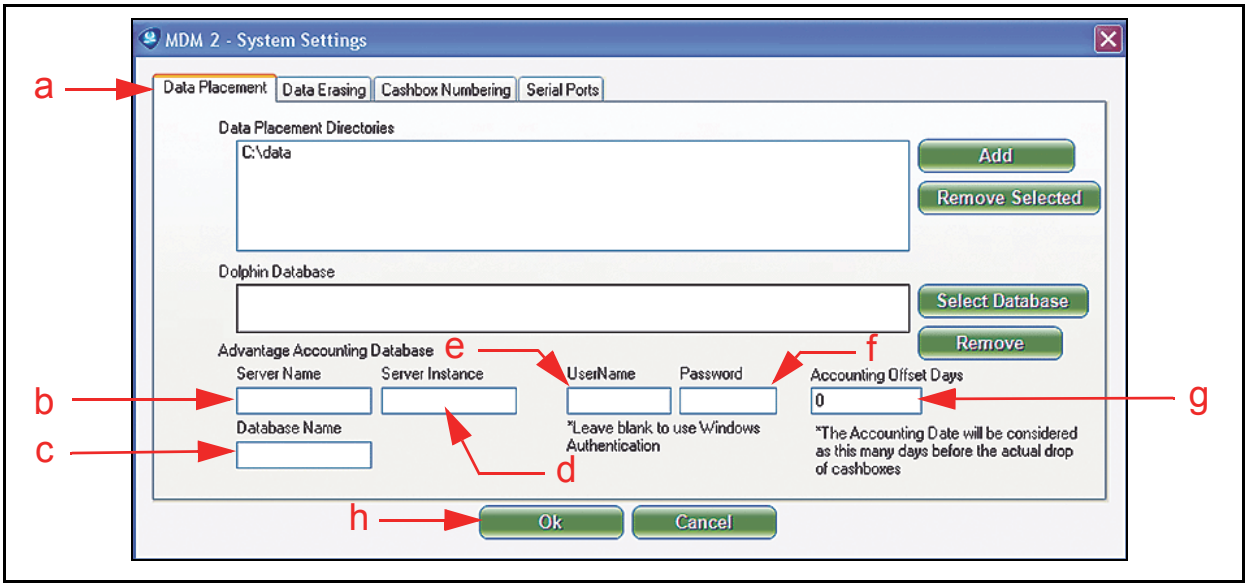



**Figure 83** Specifying SQL Server Parameters Screen

## 19 Data Erasing

The MDM Data Erasing function supports two (2) Modes of operation called:

- Read and Erase
- Read Only.

**Read and Erase –** this Mode is considered the Normal Mode of operation, and is most often used during the Soft Drop process. When an ICB Cash Box is placed on the Read-Write Tool in this mode, MDM2 reads the data and then clears (initializes) the Cash Box Memory Circuit. The Cash Box is then ready for re-use in another Game.

**Read Only –** in this Mode, MDM2 reads the data from the Cash Box Memory Circuit too, but DOES NOT erase it. The Memory contents of the Cash Box remain intact, and it can be reinstalled in the game from which it was removed. The 'Read Only' Mode should only be used to read Cash Box data prior to the normal drop cycle for Diagnostic or Test purposes.

To select the desired Data Erasing Mode, proceed as follows:

1. Mouse-click on the 'Administration' pull-down Menu of the MDM2 Main Screen, and select 'System Settings' from the list (See Figure 84 a).

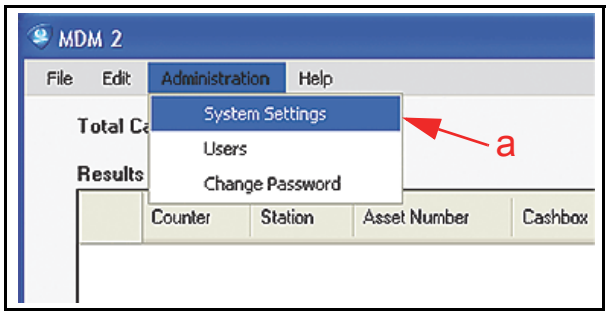



**Figure 84** Select System Settings Menu 6

2. When the '**System Settings**' Screen appears, Mouse-click on the 'Data Erasing' Tab (See Figure 85 a).
3. To select the 'Read and Erase' Mode, Mouse-click on the related Radio Button labeled 'Read and erase' (See Figure 85 b).
4. To select the 'Read Only' Mode, Mouse-click on the related Radio Button labeled 'Read only' (See Figure 85 c).
5. Mouse-click on the '**Ok**' Ok Screen Button (See Figure 85 d) to return to the MDM2 Main Screen when done selecting.


© 2012, Japan CashMachine Co., Limited

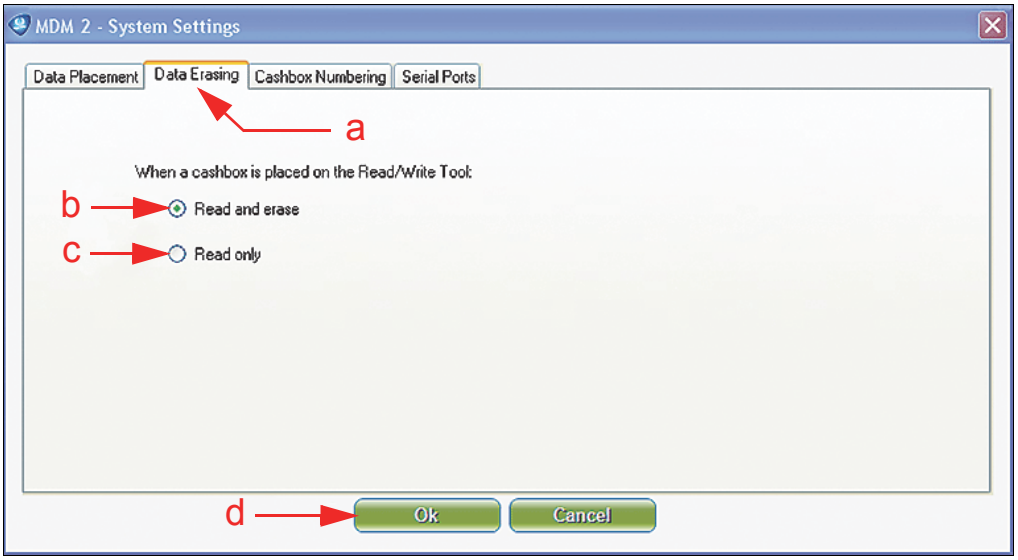



**Figure 85** Data Entry Mode Screen

## 20 Setting MDM2 Alert Options

For each step of the Cash Box docking and reading process three (3) types of Alerts are available to advise the User of the current Cash Box's Status. The Alert choices include the following:

- Sound
- Message Box or
- None.

**Sound –** when selected, this Function provide an audible Cue Tone Alert each time the associated action is performed. Various Sound alerts are available for each function.

**Message Box –** when selected, this alert type provide a visual message (e.g., a Pop-up Dialog) each time the associated action is performed. A verity of Message alerts exist for each function.

**None –** When this Function is selected no alerts (audible or visual) occur during a Cash Box docking process.

MDM2 may be set to operate with all alerts of the same type active, or as a mixed combination of all three types. To set Alert Preferences, proceed as follows:

1. Mouse-click on the 'Edit' pull-down Menu of the MDM2 Main Screen, then select 'Preferences', from the list, and then select 'Alerts' from within the 'Preferences' selection (See Figure 86 a).

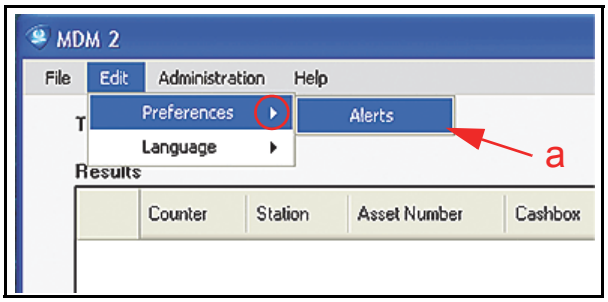



**Figure 86** Selecting Edit/Alerts Menu 1

The MDM2 '**Alerts**' Screen shown in Figure 87 will appear.

2. Mouse-click the related Radio Button to select the type of notification desired for each Alert action listed (See Figure 87 a) such as Sound, Message Box, or None.
3. When all Alert options have been set, Mouse-click on the '**Ok**' Screen Button (See Figure 87 b) to return to the MDM2 Main Screen.


© 2012, Japan CashMachine Co., Limited

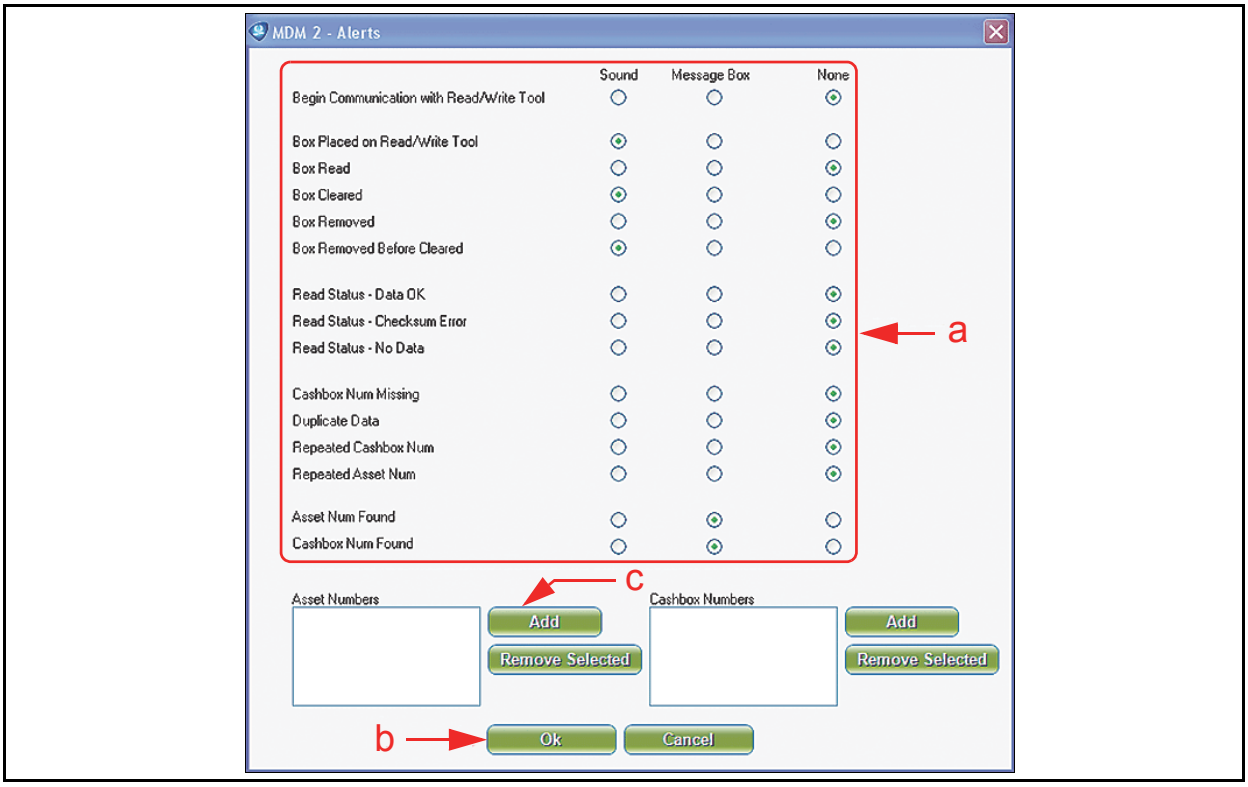



**Figure 87** Alert Options Selection Screen 1

# 21 Setting Alerts

## Setting Asset Number Alerts

MDM2 can sound or display an Alert when the Cash Box from a specific Asset is placed on the Read-Write Tool. This feature serves as an assist in flagging a Cash Box to pull from the drop. To set an Asset Number Alert proceed as follows:

1. Mouse-click on the 'Edit' pull-down Menu of the MDM2 Main Screen, then select 'Preferences', from the list, and then select 'Alerts' (See Figure 88 a) from within the 'Preferences' selection.

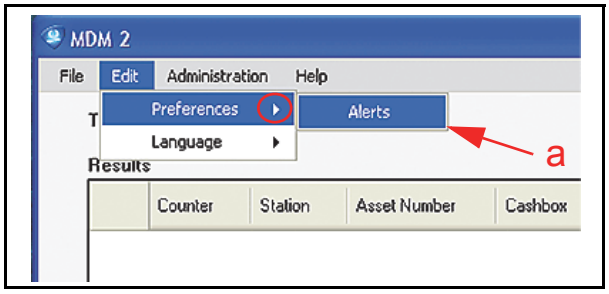



**Figure 88** Selecting Edit/Alerts Menu 2

The MDM2 '**Alerts**' Screen shown previously in Figure 87 will appear.

2. Mouse-click on the left 'Add' Add Screen Button (See Figure 87 c). When the '**Asset Number Search**' Screen appears, enter the desired Asset Number into the Asset Numbers Text Entry Field (See Figure 89 a); then Mouse-click on the 'OK' OK Screen Button (See Figure 89 b) to return as Figure 90.

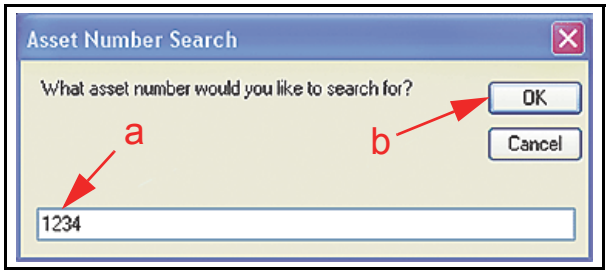



**Figure 89** Asset Number Search Dialog Screen

The Asset number just entered will appear in the 'Asset Numbers' list Box shown in Figure 90a. Additional Asset numbers may be added to the list by repeating Step 2. The type of alert received when a specified Cash Box is placed on a Read-Write Tool depends on the Alert Preference Type selected for 'Asset Num Found' in the case of the example shown in Figure 90b.

3. Mouse-click the desired Radio Button to select the desired Alert type (See Figure 90 c).
4. Once a Cash Box has been located (and its set Alert revealed by a Sound or Display) it may be deemed undesirable, and needed to be removed from the list. To remove a Cash Box from the list of Asset Numbers, Mouse-click on the 'Remove Selected' Remove Selected Screen Button (See Figure 90 d).


© 2012, Japan CashMachine Co., Limited

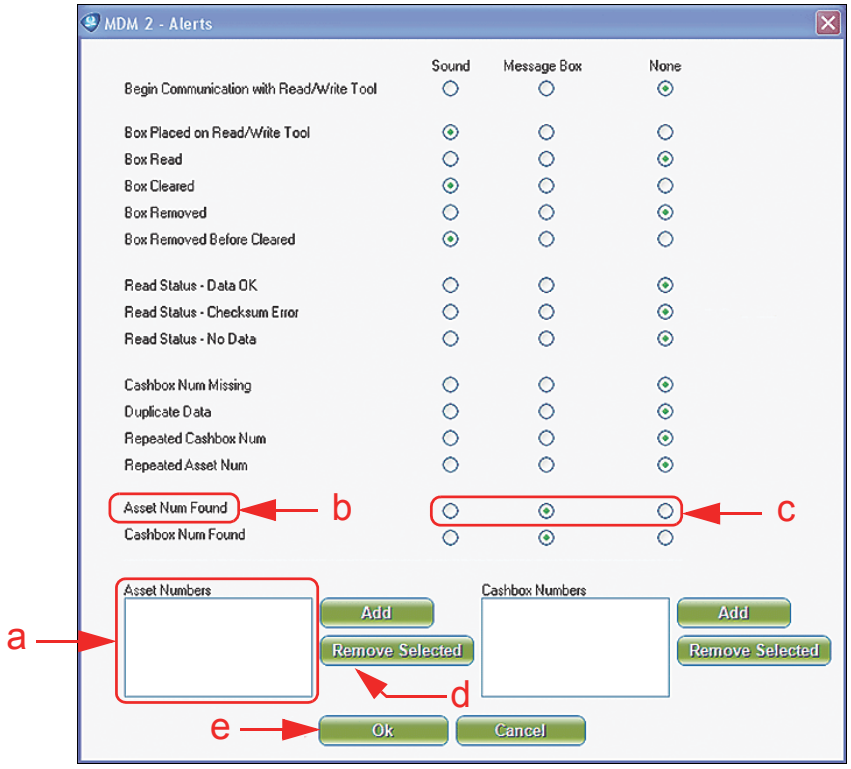



**Figure 90** Alert Options Selection Screen 2

5. When finished adding or removing numbers from the list, Mouse-click on the '**Ok**' Ok Screen Button (See Figure 90 e) to return to the MDM2 Main Screen.

## Setting Cash Box Number Alerts

MDM2 can audibly announce or visually display an Alert when a specific numbered Cash Box is placed on the Read-Write Tool. The feature can be used to flag or identify a specific Cash Box to be pulled from a Drop. To set a Cash Box Number Alert Type proceed as follows:

1. Mouse-click on the 'Edit' pull-down Menu of the MDM2 Main Screen, then select 'Preferences', from the list, and then 'Alerts' from within the 'Preferences' selection (See Figure 91 a).

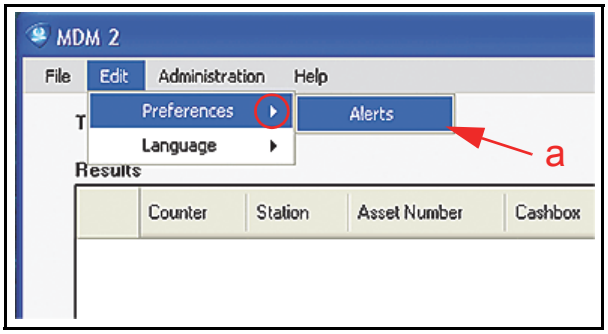



**Figure 91** Selecting Edit/Alerts Menu 2

The MDM2 '**Alerts**' Screen shown in Figure 93 will appear.

Mouse-click on the right 'Add' Add Screen Button (See Figure 93 a).

When the '**Cashbox Number Search**' Screen appears, enter the desired Cash Box Number into the Cash Box Numbers Text Entry Field (See Figure 92 a); then Mouse-click on the 'OK' OK Screen Button (See Figure 92 b) to return to the updated Figure 93 Screen.

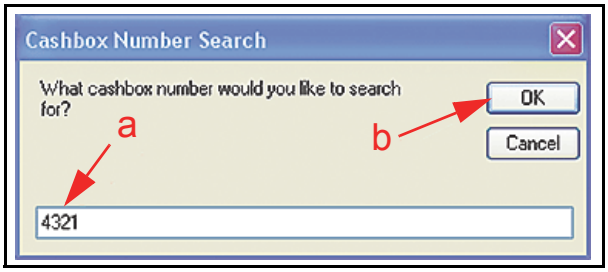



**Figure 92** Asset Number Search Dialog Screen

The Cash Box number just entered will appear in the 'Cashbox Numbers' list Box shown in Figure 93b. Additional Cash Box numbers may be added to the list by repeating Step 2.

The type of alert received when the specified Cash Box is placed on the Read-Write Tool depends on the Alert preference type selected for 'Cashbox Num Found' in the case of the example shown in Figure 93c.

2. Mouse-click the desired Radio Button to select the desired Alert type (See Figure 93 d).


© 2012, Japan CashMachine Co., Limited

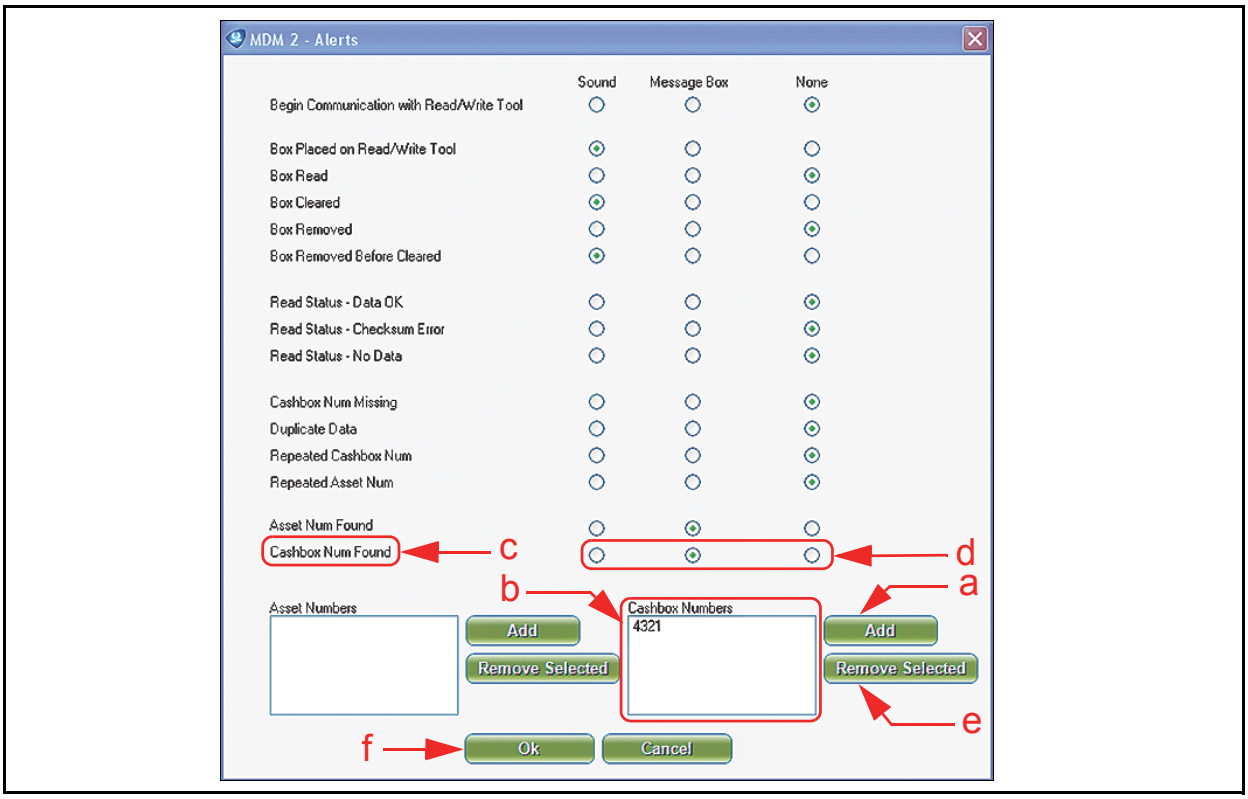



**Figure 93** Alert Options Selection Screen 3

3. Once a Cash Box has been located (and its set Alert revealed by a Sound or Display) it may be deemed undesirable, and needed to be removed from the list. To remove a Cash Box from the list of Cash Box Numbers, Mouse-click on the right 'Remove Selected' Remove Selected Screen Button (See Figure 93 e).
4. When finished adding or removing numbers from the list, Mouse-click on the '**Ok**' Ok Screen Button (See Figure 93 f) to return to the MDM2 Main Screen.

## 22 Setting the Language Preference

MDM2 can be set to display its Screens and show its Text in various Languages. At the current time, both the English and Spanish language selections are available for activation. In the near future, Chinese, German, and Japanese will also be available. However, the default language for MDM2 Program start-up is English.

To select or change the operating Language, proceed as follows:

1. Mouse-click on the 'Edit' pull-down Menu of the MDM2 Main Screen, and select 'Language' from the list. A second pull-down Menu of available Languages will appear as shown in Figure 94a with a Check-mark indicating the current selected Language.
2. Mouse-click on the desired Language. The MDM2 program will immediately switch to, and display all, text and messages in the new selected Language.

*NOTE: An example of MDM2 operating in Spanish is shown in Figure 95.*

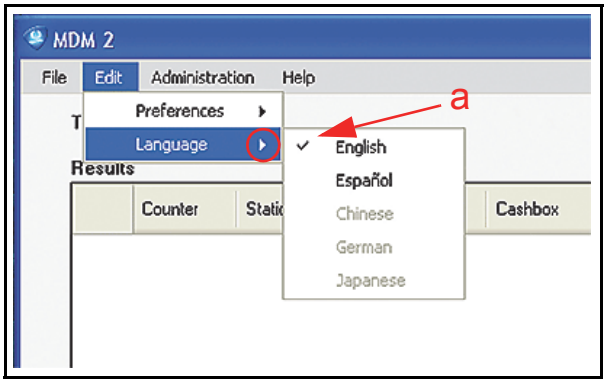



**Figure 94** Selecting Edit/Language Menu

The user may switch back to English at any time by repeating Steps 1 and 2.


© 2012, Japan CashMachine Co., Limited

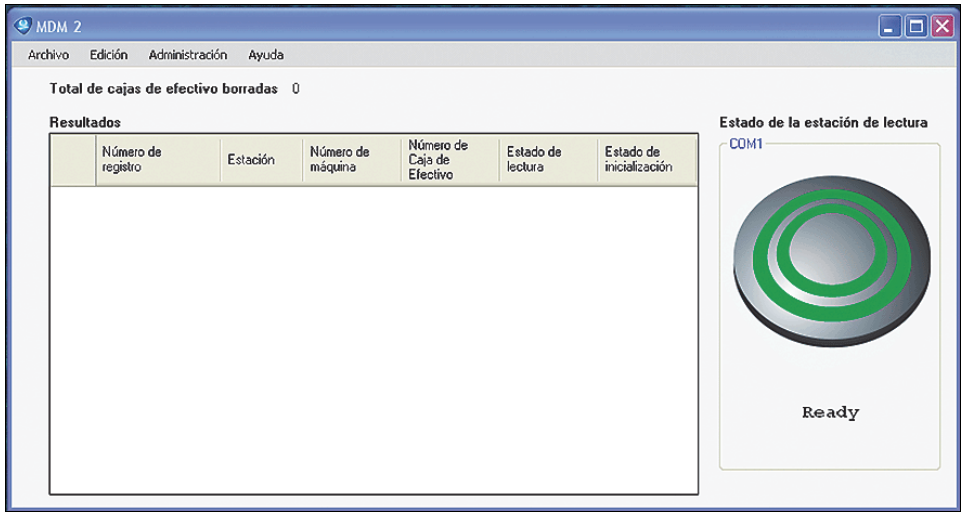



**Figure 95** Typical Selected Spanish Language MDM2 Main Screen

# 23 Communicating with Read-Write Tools

Communications between MDM2 and the Read-Write Tool(s) is an automated function. When the MDM2 Program is running, the Station Status Indicator(s) located on the right side of the Screen will actively indicate the Real-time Status of all Read-Write Tools connected to the System.

If a Read-Write Tool has been recognized by the System and is ready for communication, its Tool Status indicator will be displayed in Green (See Figure 96 a) with a text message indicating '**Ready**' showing below it (See Figure 96 b). The Station is now ready to read and process data from ICB Cash Boxes.

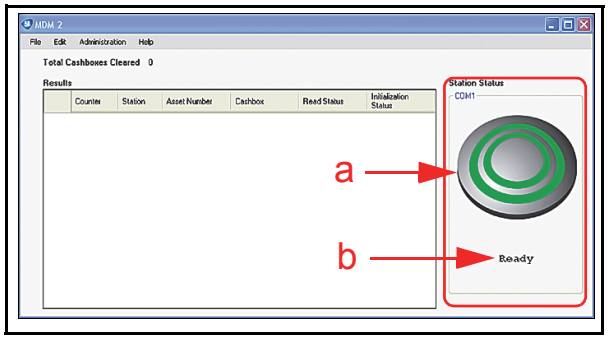



**Figure 96** Read-Write Tool Ready Screen

If the Tool's Status indicator is displayed in Red (See Figure 97 a), with the text message below reading '**Timeout**' (See Figure 97 b), it indicates that the Read-Write Tool has not yet established communications with the MDM2 Program or has been lost.

In this case, try one or more of the Steps listed below to resolve the problem:

1. Verify that a Serial Communications Cable connection exists between the Serial output Port of the Read-Write Tool and the Serial input Port of the Host PC. Re-seat Connectors if necessary.

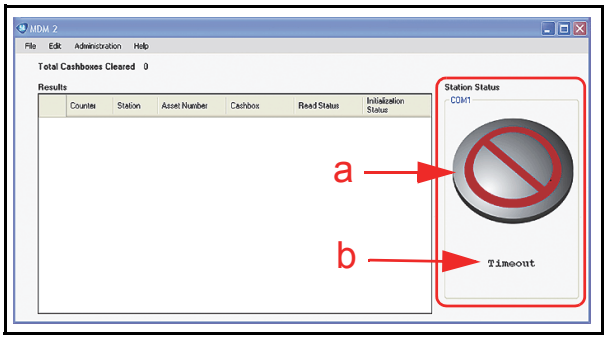



**Figure 97** Read-Write Tool Not Ready Screen

2. Verify that the Power Switch on the rear of the Read-Write Tool is set to the '**ON**' or '**1**' position.
3. Verify that a proper PC COM Port has been selected for use. For each Read-Write Tool connected to the Host PC a separate COM Port needs to be designated and active in order for the Read-Write Tool to communicate. Refer to "Setting MDM Communication Ports" on page 18 of this Service Manual for details regarding the selection and activation of COM Ports for all Read-Write Tools connected to an MDM System.
4. If the Read-Write Tool still isn't communicating, it may be due to internal configuration settings within the Read-Write Tool itself. Contact JCM Technical Support for assistance in this case.

## Data File Creation

When the MDM2 program is run, a Data Capture file is created on the Host PC in the directory specified on the Data Placement Screen (Review Figure 78). The Data file has a 'mmddyyyy_hhmmss.icb' Naming Format which identifies the Date and 24 Hour Time that the File was created. For example, a data file named '04302011_141540.icb' was created on April 30, 2011 at 2:15:40 PM.


© 2012, Japan CashMachine Co., Limited

## Reading an ICB Cash Box

To read data from an ICB enabled Cash Box into MDM2 proceed as follows:

1. On the MDM2 program Main Screen, verify that the 'Station Status' Indicator is Green (See Figure 98 a) and indicates the message '**Ready**' as shown in Figure 98b.

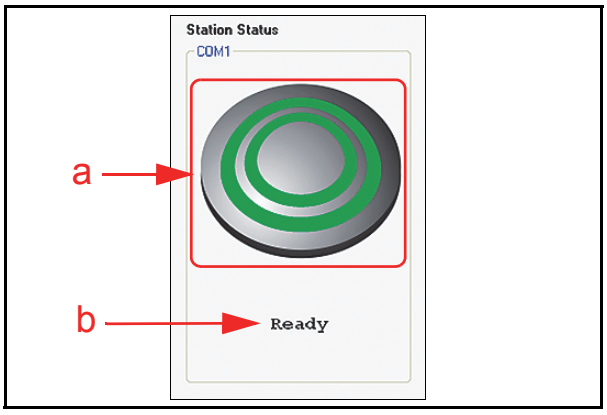



**Figure 98** Read-Write Tool Ready Indicator

2. Place a Cash Box onto the Read-Write Tool. The data transfer from the Cash Box Memory circuit to the Read-Write Tool will begin automatically. During the time that the Cash Box is being read, the 'Station Status' Indicator will show a graphic representation of a Clock (See Figure 99 a) and will indicate the message '**Reading**' as shown by Figure 99b.

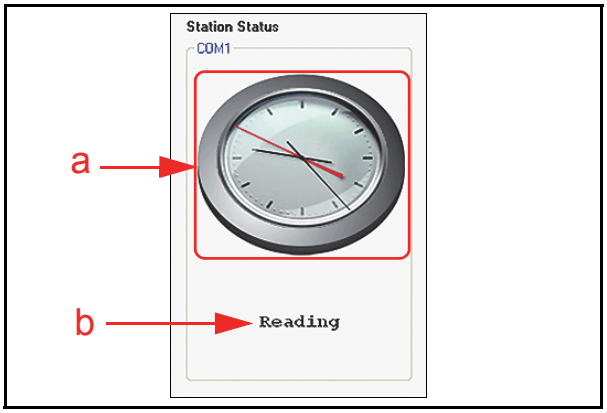



**Figure 99** Read-Write Tool Reading Indicator

3. Once the Cash Box has been read, MDM2 will then initialize the Cash Box Memory Circuit. During this time, the 'Station Status' indicator will display the text message '**Initializing**' as shown in Figure 100a.
4. Once the Cash Box Memory Circuit has been initialized, the 'Status Indicator' will change back to Green and will indicate '**Ready to Remove**' as shown in Figure 101a.
   The Cash Box may now be removed from the Read-Write Tool, and is ready for use in another Asset location. If additional Cash Boxes are to be read, simply repeat Steps 1 through 4.

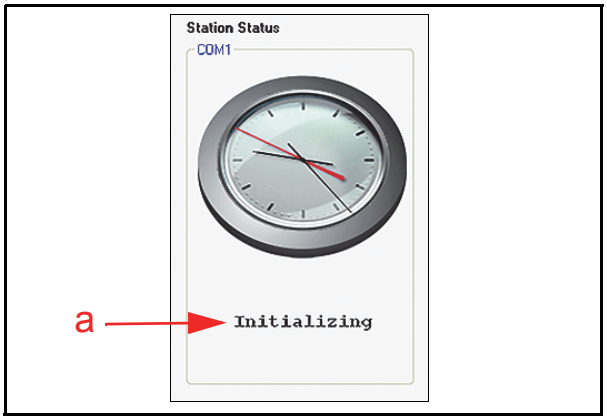



**Figure 100** Read-Write Tool Initialization Indicator

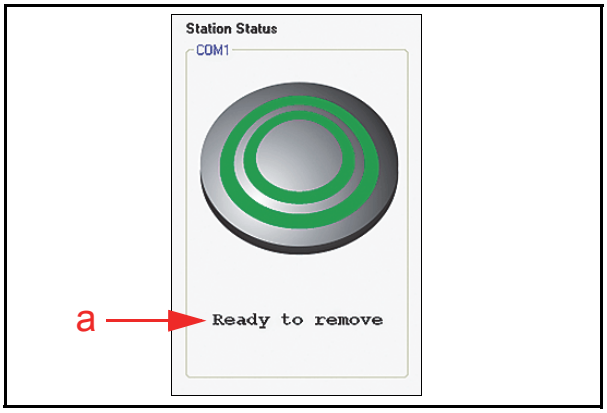



**Figure 101** Read-Write Tool Removal Indicator

*NOTE: If a Ticket Printer is connected (and enabled), a Barcode Ticket will be printed out for each Cash Box docked and read. Retrieve the ticket. See Section "25 Tickets and Printers" on page 31 of this Manual for more information regarding Tickets and Printers.*

Occasionally, a Cash Box placed on the Read-Write Tool may fail to interact properly or transfer its data to the Read-Write Tool. In this case, the 'Station Status' Indicator will display a Yellow colored Triangle and indicate the text message '**Unable to communicate with cashbox**' as shown in Figure 102.

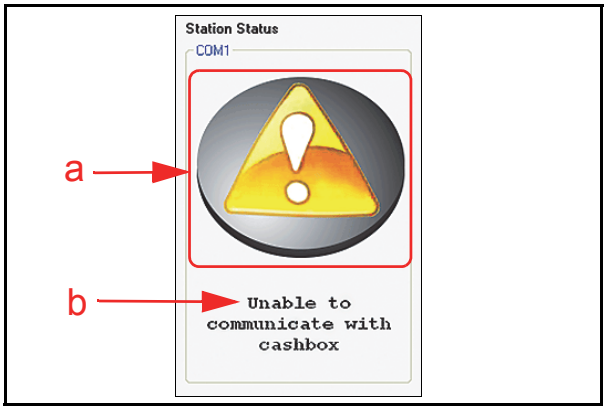



**Figure 102** Unable to Communicate Indicator 1


© 2012, Japan CashMachine Co., Limited

If this type of error occurs, try one or more of the following actions:

1. Remove and re-seat the Cash Box onto the Read-Write Tool for a second read attempt.
2. Using a clean cloth, wipe the Optical Sensors on the Cash Box Memory Module, as-well-as the Optical Sensors on the Docking Station. Re-seat the Cash Box onto the Read-Write Tool again for another read attempt.
3. Verify that the ICB Enable Switch on the Cash Box Memory Module is set to 'ON'. The switch is located adjacent to the Cash Box Optical Sensors on the Cash Box Memory Module as indicated in Figure 103.

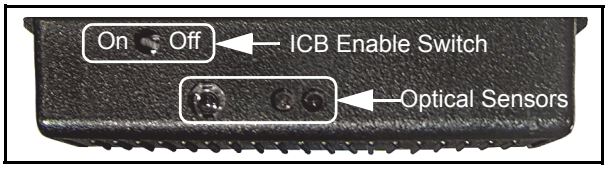



**Figure 103** ICB Memory Module Switch & Sensors

If the problem still persists, the Memory Module on the Cash Box may be asleep or defective. Refer to the Troubleshooting Appendix Section of this Manual for Cash Box Memory Module testing and Battery refreshing information.

## 24 Reading ICB Cash Box Data

As each Cash Box is docked and its data read, some of the information retrieved is displayed on the MDM2 Main Screen as shown in Figure 94. The information provided is explained as follows:

**Total Cashboxes Cleared –** an incrementing Numerical Value indicating the total number of Cash Boxes that have been docked, read, and cleared (initialized) during the currently open MDM2 Session. This value starts again from Zero (0) each time the MDM2 program is run (See Figure 104 a).

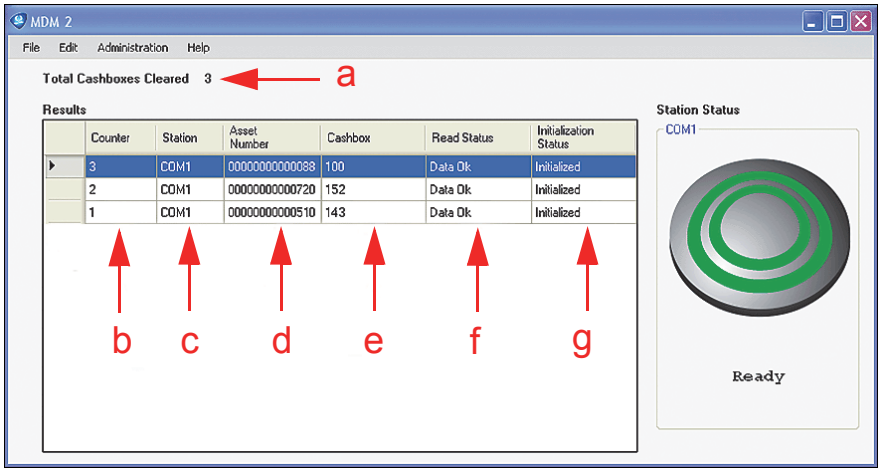

MDM 2
File Edit Administration Help
Total Cashboxes Cleared 3
a
Results
Station Status
COM1
Counter Station Asset Number Cashbox Read Status Initialization Status
3 COM1 00000000000088 100 Data Ok Initialized
2 COM1 00000000000720 152 Data Ok Initialized
1 COM1 00000000000510 143 Data Ok Initialized
b c d e f g
Ready

**Figure 104** ICB Cash Box Data Display Screen

**Counter –** lists the total number of Cash Boxes docked; a Numerical Value representing each Cash Boxes' position in the docking sequence (See Figure 104 b). For example, a Counter Value of '1' indicates the first Cash Box docked during the current MDM2 Session, while a Counter value of '3' indicates the third Cash Box docked during the current MDM2 Session.

**Station –** identifies the individual Read-Write Tool where the associated Cash Box was docked at the time it was read (See Figure 104 c). The text or value displayed here may be customized if desired by using the Read-Write Tool Configuration Utility. Contact JCM Technical Support for assistance with this function if desired. If not previously defined, the Default Value displayed for this Field will be the PC COM Port to which the Read-Write Tool is connected and communicating (i.e.: COM1, COM3, COM4, etc.).

**Asset Number –** a Numerical Value identifying the Asset from which the associated Cash Box was removed for the current Drop Cycle. The value is accurate as long as the Asset number assigned to the associated Bill Validator (e.g., the BV that Cash Box was removed from) is the same as the Asset Number of the Game or Machine where it was installed (See Figure 104 d). If the Asset Number Data Field is empty (e.g., contains no value), or shows all Zeroes (0…0), it indicates that the Cash Box failed to properly record the Asset Number. This may be due to a Validator without an assigned Asset Number, a Validator whose ICB function is disabled, an improperly seated Cash Box, or due to a Cash Box Memory Module error.

**Cashbox –** a Numerical Value representing the Serial Number of the Cash Box (See Figure 104 e). Each Cash Box contains its own unique Cash Box Number. If the Cashbox Data Field is empty, or shows corrupted data, then the Cash Box should be re-docked. The MDM2 program will then automatically assign a new Number to the Cash Box. For information on Cash Box numbering, refer to"Setting MDM Cash Box Numbers" on page 19 of this Service Manual.


© 2012, Japan CashMachine Co., Limited

**Read Status –** indicates the Data transfer Status from the Cash Box to the Read-Write Tool. If the Data Transfer was successfully completed without errors, the Read Status will indicate 'Data OK'. (See Figure 104 f). If the Read Status displays 'No Data', it indicates that the Cash Box Memory Circuit contained no data, or failed to properly read data when placed on the Read-Write Tool. Try re-docking the Cash Box again. If the Read Status displays 'Checksum Error', it indicates that the Checksum Value calculated by MDM2 for the Data Stream just read from the Cash Box was incorrect, and does not match the Checksum Value stored with the Data stream itself. Try re-seating the Cash Box. If the failure persists, it may be due to a lost or corrupted Data Bit in the Memory Circuit, or a defective Memory Module Circuit Board.

**Initialization Status –** indicates that the final Status of the associated Cash Box when the docking process is complete. If the display shows 'Initialized' (See Figure 104 g), it indicates that the Cash Box has been read, the data has been transferred, the Memory Circuit has been cleared, and the Cash Box is ready for use in another Asset location. If the display shows 'Not Initialized', it indicates that the Memory Circuit within the Cash Box Memory Module has not been cleared, and the old Asset Data is still present. This is usually the result of placing the Cash Box on the Read-Write Tool with the 'Read Only' option set. For further information concerning the Read and Erase Options, refer to “Data Erasing” on page 23 of this Manual. If a 'Not Initialized' Message is displayed while operating in the 'Read and Erase' Mode, then try re-docking the Cash Box again in order to re-initialize it.

# 25 Tickets and Printers

If the Printer output Connector located at the rear of the Read-Write Tool, is connected to a compatible Ticket Printer, then a Barcode Ticket will be printed for each Cash Box docked and read. Ticket formats are customized based on Customer’s preferences, and in compliance with local Regulations. Typical Sample Ticket Styles are illustrated in Figure 105.

The Ticket created contains Barcode Data information which identifies the Machine Number (Asset Number) to the associated Count Sort Machine’s Scanner. At the present time, the following Ticket Printers/Printer Formats are supported:

- JCM TSP02
- PayCheck4
- Ticketrax
- Cummins Allison
- G&D DEG/Linker.

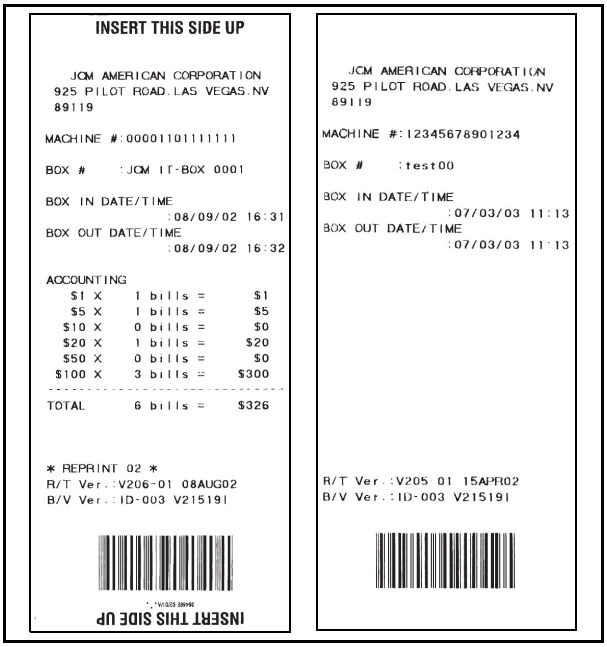



**Figure 105** Two Available Sample Ticket Options

*NOTE: Each Read-Write Tool installed is configured internally to work correctly with its selected Printer. This is done automatically by JCM personnel when the ICB System is installed at the Customer’s Site. If it is necessary to change the Printer settings at a later date, please contact JCM for assistance.*

## Sorting Cash and Tickets

When a stack of Banknotes and Tickets are placed on a Count Machine, most modern Count Machines will automatically return the Barcode Tickets. These tickets will be sent with the accounting paperwork when a Soft Count is completed. Additional information on typical Count Room Equipment is provided in Table 2.

**Table 2** Typical Count Room Equipment

| Typical Count Room Equipment | | |
|---|---|---|
| **Count Sort Machine** | **Options** | **Printer Type** |
| Cummins Allison | Jet Scan MPS* | SATO M-5900RV |
| Giesecke & Devrient (G&D) | Deg Linker† | None |
| Giesecke & Devrient (G&D) | Labletracks‡ | IMPACT |
| Toshiba | X** | JCM |
| Delarue | X** | JCM |
| Glory | X** | JCM |

* Uses a special ticket containing a foil patch on the reverse side for multi-batch processing.

† Uses pre-printed tickets that are scanned when the can is docked.

‡ Prints a special Barcode containing magnetic ink when the can is docked for high speed processing.

** Uses standard JCM Tickets that are scanned at the Count Sort Machine.


© 2012, Japan CashMachine Co., Limited

# 26 Closing the MDM2 Application

To close the MDM2 Application proceed as follows:

1. Mouse-click on the 'File' pull-down Menu of the MDM2 Main Screen, and select 'Exit' from the list (See Figure 106 a).

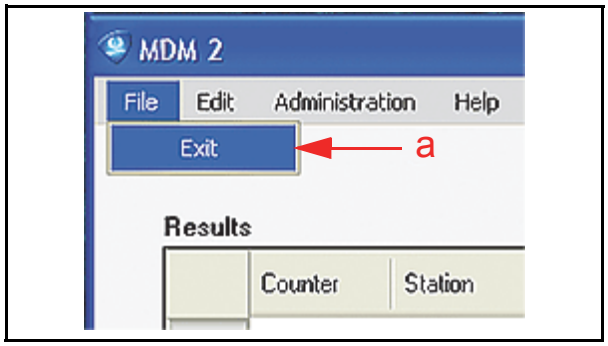



**Figure 106** Exit Application Screen

As an alternative, the Application may also be exited by Mouse-clicking on the Red X Exit Screen Button located at the upper right corner of the Main Screen (See Figure 107 a).

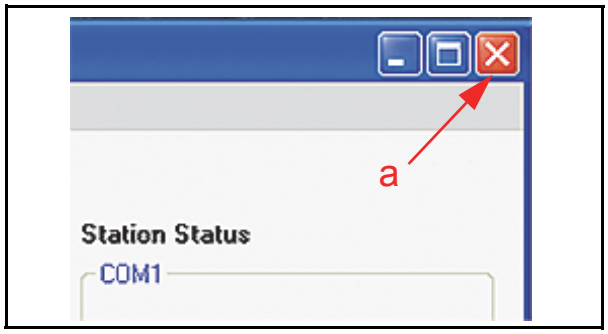



**Figure 107** Alternate Exit Screen Button Location

2. An 'Are you sure you would like to exit MDM?' Pop-up Dialog message will appear as shown in Figure 108. Mouse-click on the 'Yes' Screen Button to exit the Program, or 'No' to return to the application.

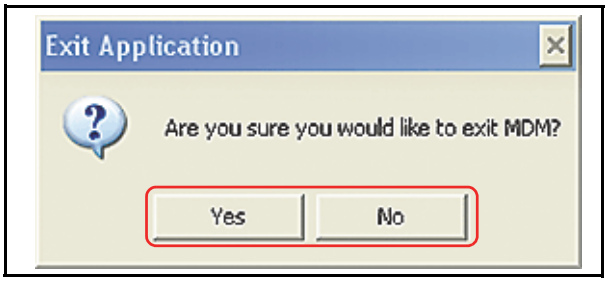



**Figure 108** Exit Questioning Dialog Screen

*NOTE: When the MDM2 Application closes, the MDM Data File (containing all of the downloaded Cash Box data) will also close. The Data File can then be accessed by the ICB Web Reports Application.*

# 27 Help Functions

## User Manual

The MDM2 Operation and Maintenance Manual (JCM Part No. 960-000044R) is available to the User in a standard printed format; or it may be downloaded in a zipped PDF File Format from the Support/Downloads Section of the JCM Global Website at: www.jcmglobal.com.

Additionally, a PDF formatted copy of the Manual has been appended and added to the MDM2 application itself. The manual may be viewed at any time as follows:

1. Mouse-click on the 'Help' pull-down Menu of the MDM2 Main Screen, and select 'User Manual' from the list (See Figure 109 a).

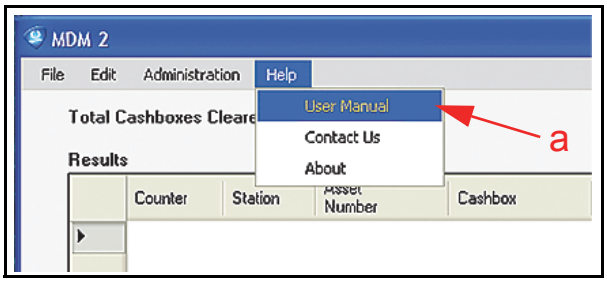



**Figure 109** User Manual Access Screen

2. The User Manual will open in a separate window for use as an instant reference.

*NOTE: This Option will be enabled at a future time. It is currently Grayed-out and unavailable at this time.*

## Contact Us

JCM strives to offer its Customers the best products and support possible. To that end, we appreciate both positive and negative feedback on our Validators and associated Applications.

The MDM2 '**Contact Us**' information Screen displays our JCM Global Website Address, our Technical Support E-mail Address, and our 24-Hour Toll Free Technical Support Hotline Telephone Number.

The contact information may be viewed at any time as follows:

1. Mouse-click on the 'Help' pull-down Menu of the MDM2 Main Screen, and select 'Contact Us' (See Figure 110 a).
2. When selected, the 'Contact Us' information Screen will be displayed and contact data as shown in Figure 111a will be present.

**Figure 110** Contact Information Selection Screen


© 2012, Japan CashMachine Co., Limited

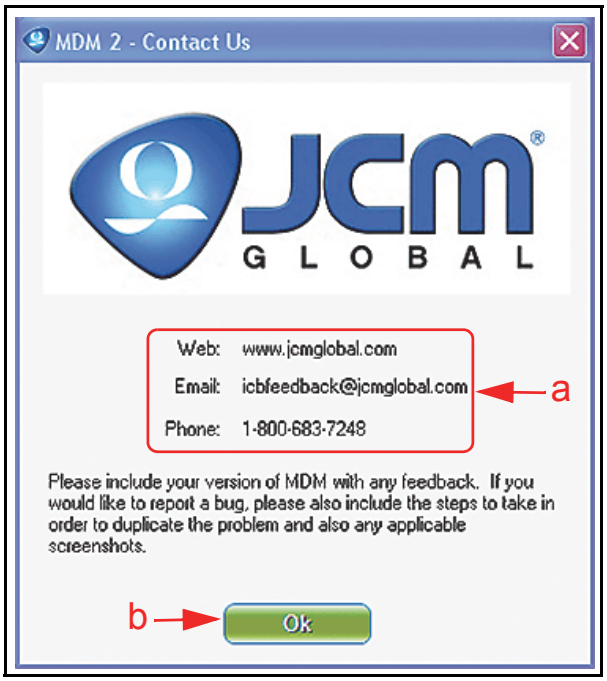

MDM 2 - Contact Us
JCM GLOBAL
Web: www.jcmglobal.com
Email: icbfeedback@jcmglobal.com
Phone: 1-800-683-7248
a
Please include your version of MDM with any feedback. If you would like to report a bug, please also include the steps to take in order to duplicate the problem and also any applicable screenshots.
b
Ok

**Figure 111** Contact Us Information Screen

3. When finished reviewing the JCM Contact Information, Mouse-click on the '**Ok**' Ok Screen Button (See Figure 111 b) to return to the MDM2 Main Screen.

## About MDM2

When selected, the 'About' function displays the Version Number of the MDM2 Application currently installed. The information presented is useful when contacting JCM for Technical Support.

The MDM2 Version Number may be viewed at any time as follows:

1. Mouse-click on the 'Help' Pull-down Menu of the MDM2 Main Screen, and select 'About' from the list (See Figure 112 a).
2. When selected, the Version Number will be displayed as shown in Figure 113a.

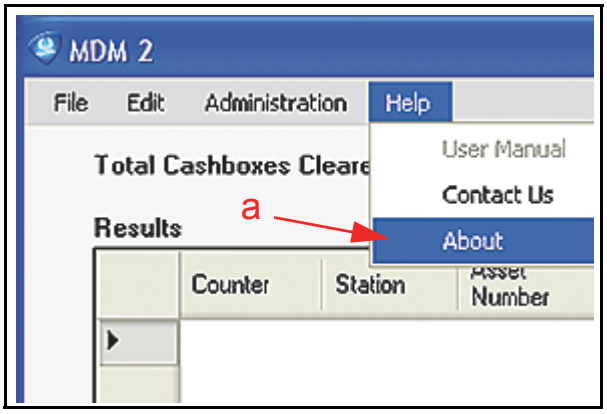



**Figure 112** About Us Selection Screen

**Figure 113** MDM2 Version Number Screen

3. When finished reviewing the Version Number, Mouse-click on the '**Ok**' Ok Screen Button (See Figure 113 b) to return to the MDM2 Main Screen.

This completes the MDM2 Operation information Section.


© 2012, Japan CashMachine Co., Limited

# 28 Exploded Views and Parts Lists

## Printer Station Exploded View

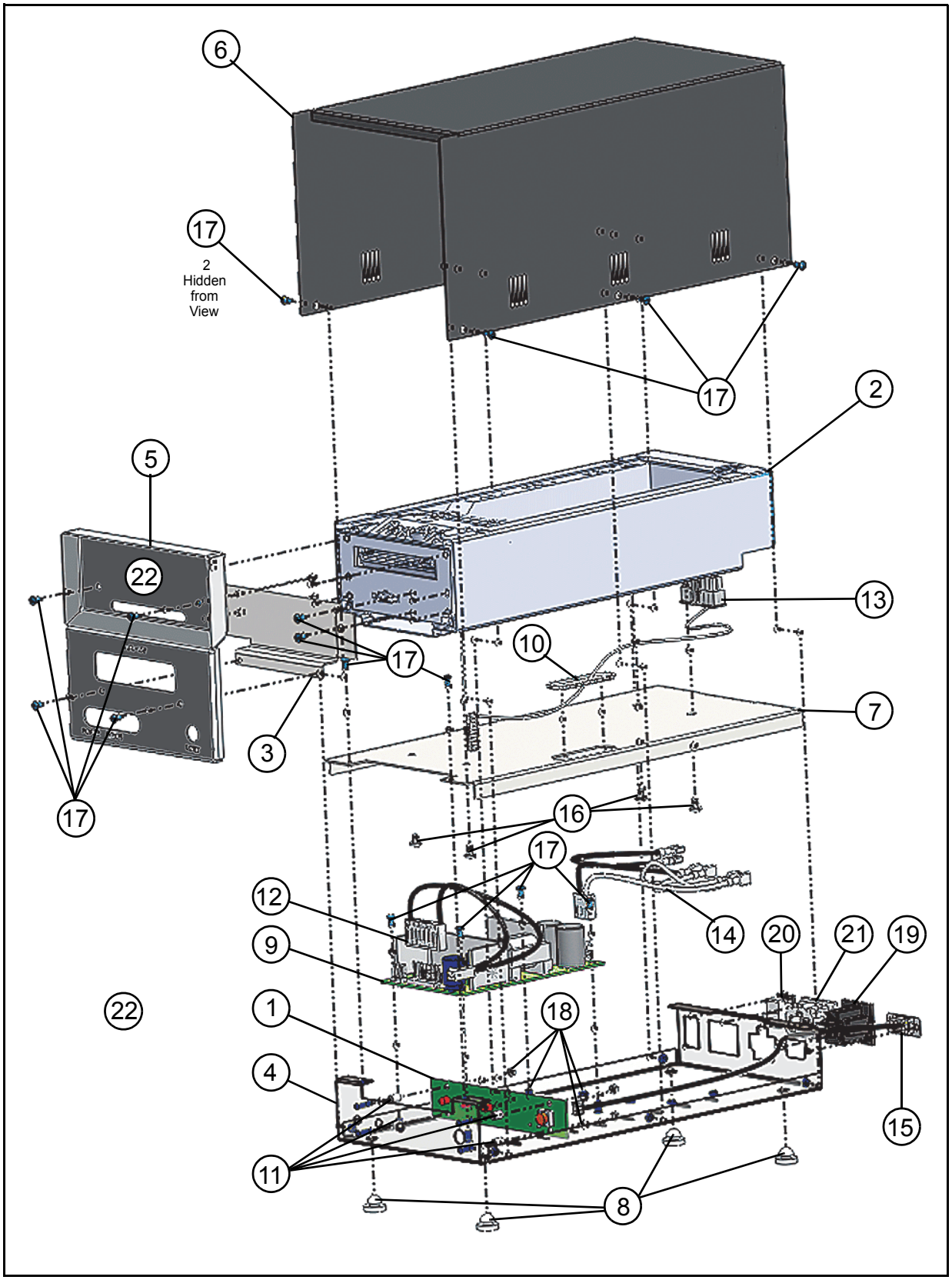



**Figure 114** Printer Station Exploded View Diagram


© 2012, Japan CashMachine Co., Limited

## PRINTER STATION PARTS LIST

**Table 3** Printer Station Parts List Table

| No. | JAC No. | Description | Qty. |
|---|---|---|---|
| 1 | 300-100196R | Display PCB Board | 1 |
| 2 | 613-020002R | TSP-02 Printer | 1 |
| | | PayCheck4 Printer | 1 |
| 3 | 200-101134R | Release Plate | 1 |
| 4 | 200-101135R | Printer Base | 1 |
| 5 | 200-101136R | Printer Display Bracket | 1 |
| 6 | 200-101137R | Display Printer Cover | 1 |
| 7 | 200-101138R | Printer Mounting Bracket | 1 |
| 8 | 900-101126R | Rubber Bumper with Plug | 4 |
| 9 | 451-100126R | Sky Net Power Supply | 1 |
| 10 | 900-101128R | Serrated Edge Trim | 1 |
| 11 | 900-101127R | Nylon Standoff [Display] | 4 |
| 12 | 400-100267R | Power Supply Display Harness | 1 |
| 13 | 400-100291RA | Printer Harness, TSP-02 | 1 |
| | | Printer Harness, PayCheck4 | 1 |
| 14 | 400-100269R | Power Supply Outlet Power Switch, AC Receptacle & Power Outlet Harness | 1 |
| 15 | 400-100290R | Harness, Printer, Led Display | 1 |
| 16 | 490-001133R | Screw M4 x 0.7 x 4.0mm Phil Pan Head Z-P | 4 |
| 17 | 171-300505R | Screw M3 x 0.5mm Phillips Pan Head | 21 |
| 18 | 140-000004R | S-nut, Hex M3 x 0.5mm | 4 |
| 19 | 451-0000085R | Receptacle, Snap-in A/C Outlet | 1 |
| 20 | 451-0000086R | Switch Rocker | 1 |
| 21 | 451-0000087R | Snap-in Plug A/C Input | 1 |
| 22 | 900-000001R | Label for Printer Station | 1 |


© 2012, Japan CashMachine Co., Limited

## Silver Read-Write Tool Exploded View

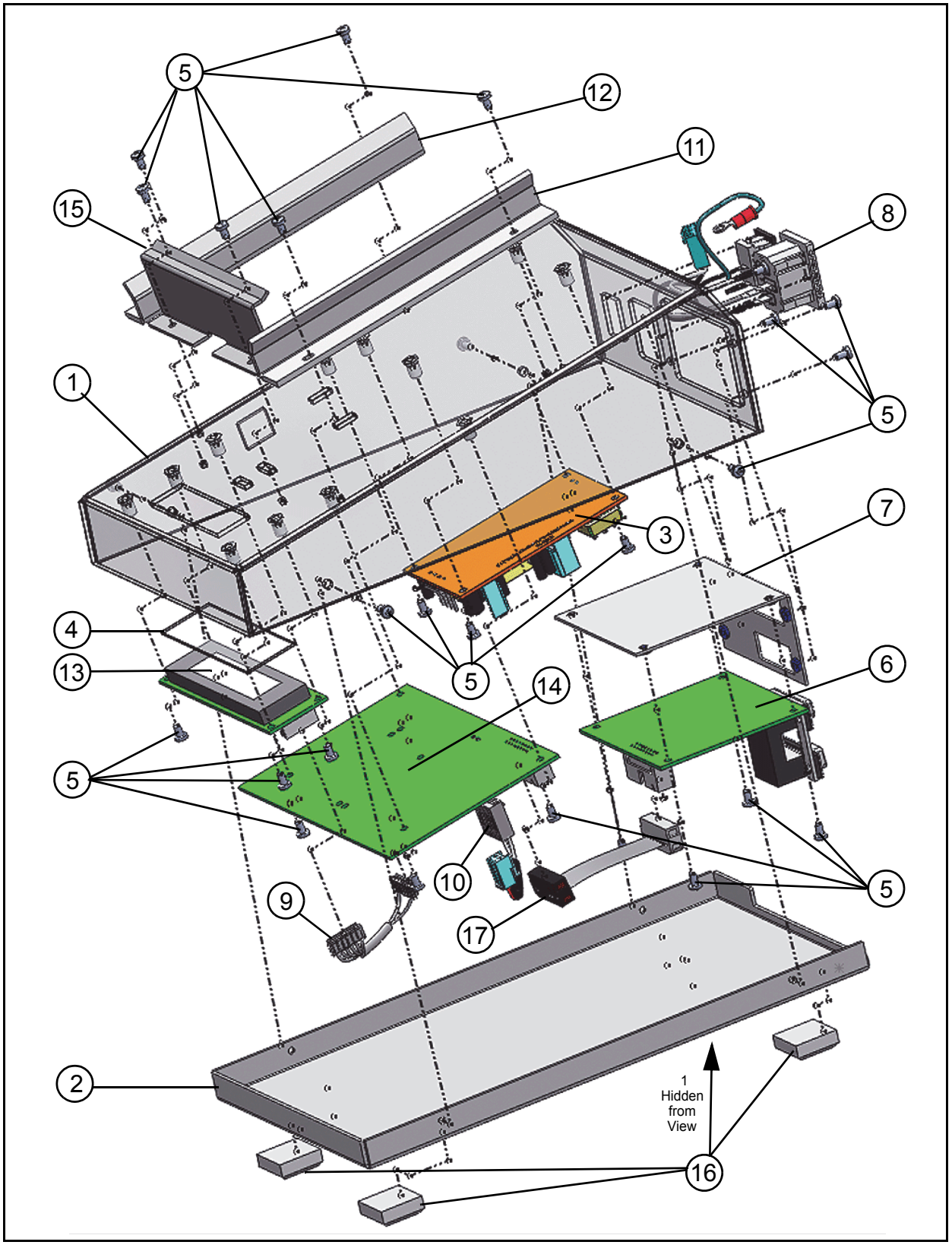



**Figure 115** Silver Read/Write Tool Exploded View Diagram


© 2012, Japan CashMachine Co., Limited

## SILVER READ-WRITE TOOL PARTS LIST

**Table 4** Silver Read/Write Tool Parts List

| No. | EDP No. | JAC No. | Description | Qty. |
|---|---|---|---|---|
| 1 | Use instead → | 200-101133R | ICB Read-Write Tool Docking Station Cover | 1 |
| 2 | Use instead → | 200-161132R | ICB Read-Write Tool Docking Station Base | 1 |
| 3 | Use instead → | 419-000785R | ICB Read-Write Tool Power Supply | 1 |
| 4 | Use instead → | 900-100135R | Glass Display Lens | 1 |
| 5 | Use instead → | 171-300505R | M3.0x5 Phillips Pan Head Screw | 30 |
| 6 | Use instead → | 300-100082R | ICB Read-Write Tool Octopus Board | 1 |
| 7 | Use instead → | 200-101131R | ICB Read-Write Tool Mounting Plate | 1 |
| 8 | Use instead → | 400-100265R | ICB Read-Write Tool Internal Receptacle Switch Harness | 1 |
| 9 | Use instead → | 400-100213R | ICB Read-Write Tool Module to Board Harness | 1 |
| 10 | Use instead → | 400-100263R | ICB Read-Write Tool Internal Power Supply Harness (to 300-100180R Main Controller Octopus PCB) | 1 |
| 11 | Use instead → | 200-101130R | Left Guide | 1 |
| 12 | Use instead → | 200-101129R | Right Guide | 1 |
| 13 | Use instead → | 491-000786R | 128x32 VF Graphic Display Module | 1 |
| 14 | Use instead → | 300-100180R | Main Controller Octopus Printed Circuit Board | 1 |
| 15 | Use instead → | 200-101128R | WBA Stop Bracket | 1 |
| 16 | Use instead → | 900-101125R | 0.81 in. square x 0.31 in. Thick Rubber Foot | 4 |
| 17 | Use instead → | 400-100264R | CSC10G/R020/CSC10G IDC Cable | 1 |


© 2012, Japan CashMachine Co., Limited

## Black Read-Write Tool Exploded View

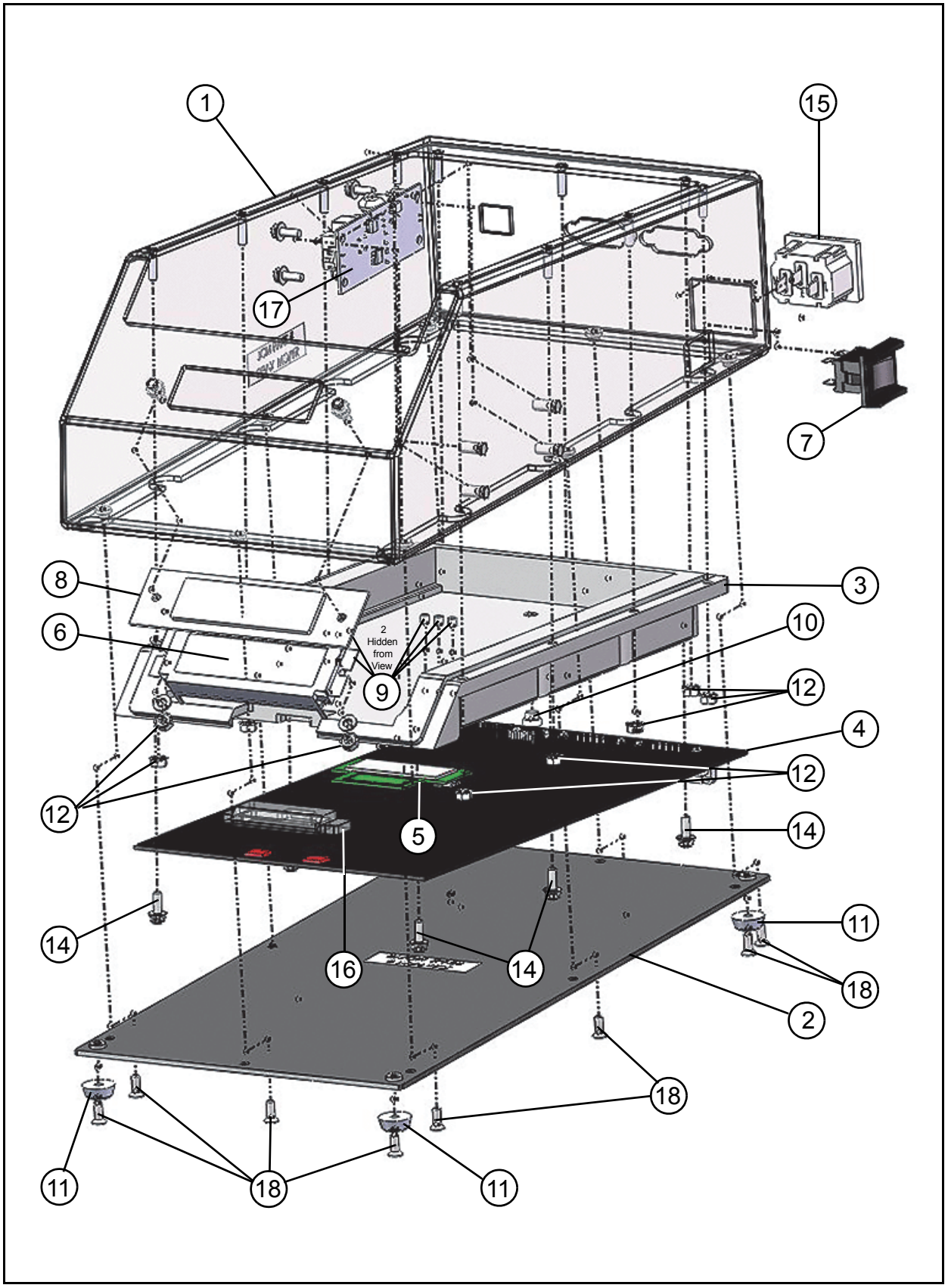



**Figure 116** Black Read/Write Tool Exploded View Diagram


© 2012, Japan CashMachine Co., Limited

## BLACK READ-WRITE TOOL PARTS LIST

**Table 5** Black Read/Write Tool Parts List

| No. | JAC/EDP No. | Description | Qty. |
|---|---|---|---|
| 1 | 200-000337R | Assy, Cover, Upper R/W Tool, UBA/iVIZION | 1 |
| 2 | 200-000336R | Cover, Lower R/W Tool, UBA/iVIZION | 1 |
| 3 | 900-101206R | Tray, Dual R/W Tool | 1 |
| 4 | 300-100999R | Assy, Dual R/W Tool PCB | 1 |
| 5 | EDP # 14783 | RFID Module | 1 |
| 6 | 900-000009R | Lens, Read-Write Display | 1 |
| 7 | 451-100135R | Switch, Rocker, DPST 6A 125V | 1 |
| 8 | 300-000020R | LCD Module Graph 122x32 WH TRANS(V) | 1 |
| 9 | 900-000011R | Pipe, Dual Read-Write Tool Light | 5 |
| 10 | 900-100439R | Bushing, 05, Sensor, RE7AJ04A | 1 |
| 11 | 900-000016R | Bumper,0.500x0.1875 in Rubber | 4 |
| 12 | 140-000106R | Nut, KEP Steel M3 | 15 |
| 13 | N/A | N/A | 0 |
| 14 | 186-300508R | Screw, Phillips Pan Head, Flat/Split M3x8 | 10 |
| 15 | 451-000106R | Connector, AC Receptacle, 0.8mm Snap/0.187 FO | 1 |
| 16 | 900-000004R | Lens, Read-Write Tool LED | 1 |
| 17 | 451-000105R | Power Supply, 5VDC R/W Tool, UBA/iVIZION | 1 |
| 18 | 173-300008R | Screw, M3x8, Counter Sunk | 12 |


© 2012, Japan CashMachine Co., Limited

## Standard Intellegent Cash Box Exploded View

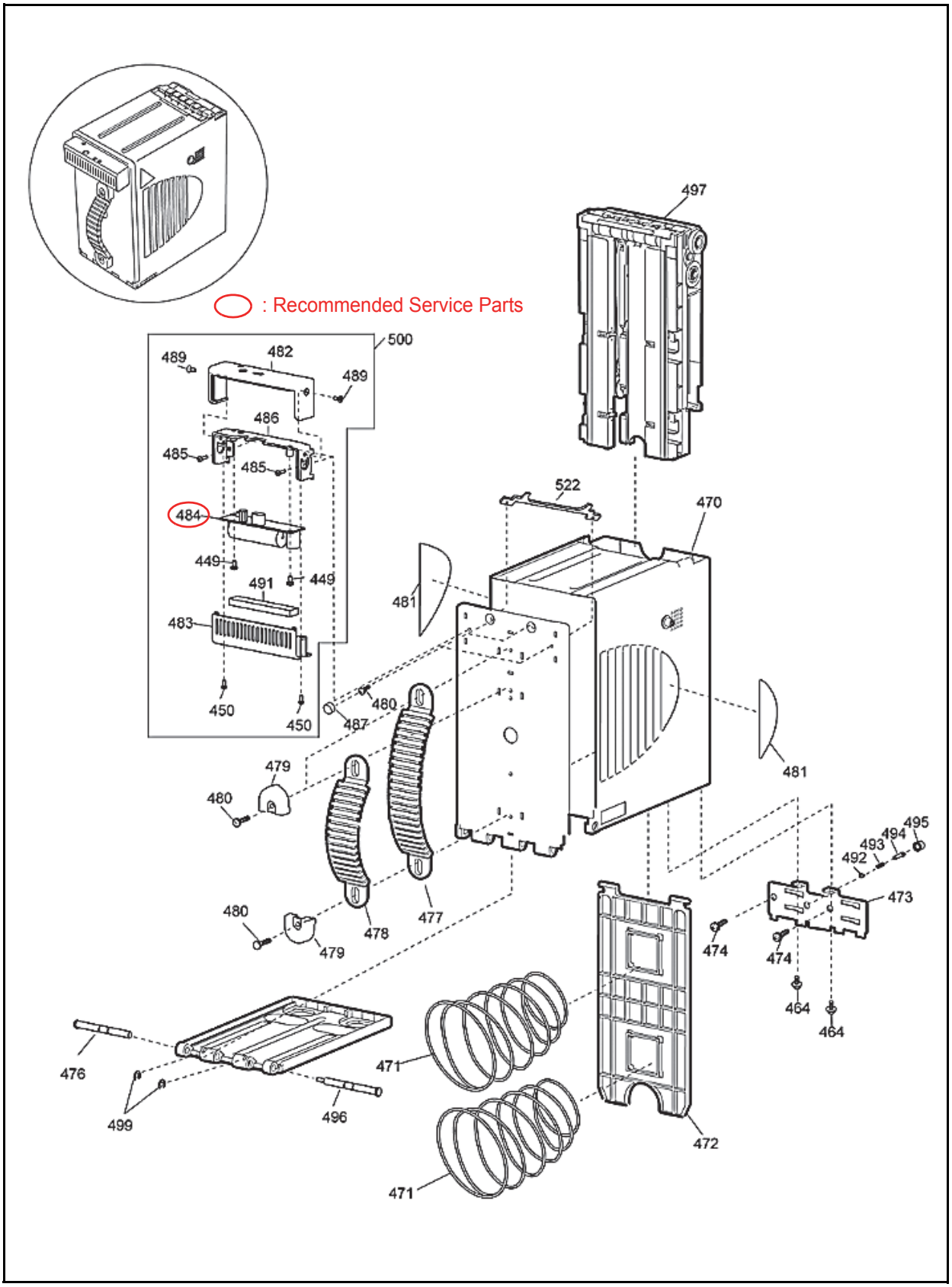



**Figure 117** Standard UBA-SS Intelligent Cash Box Unit Exploded View Diagram


© 2012, Japan CashMachine Co., Limited

## Large Intellegent Cash Box Exploded View

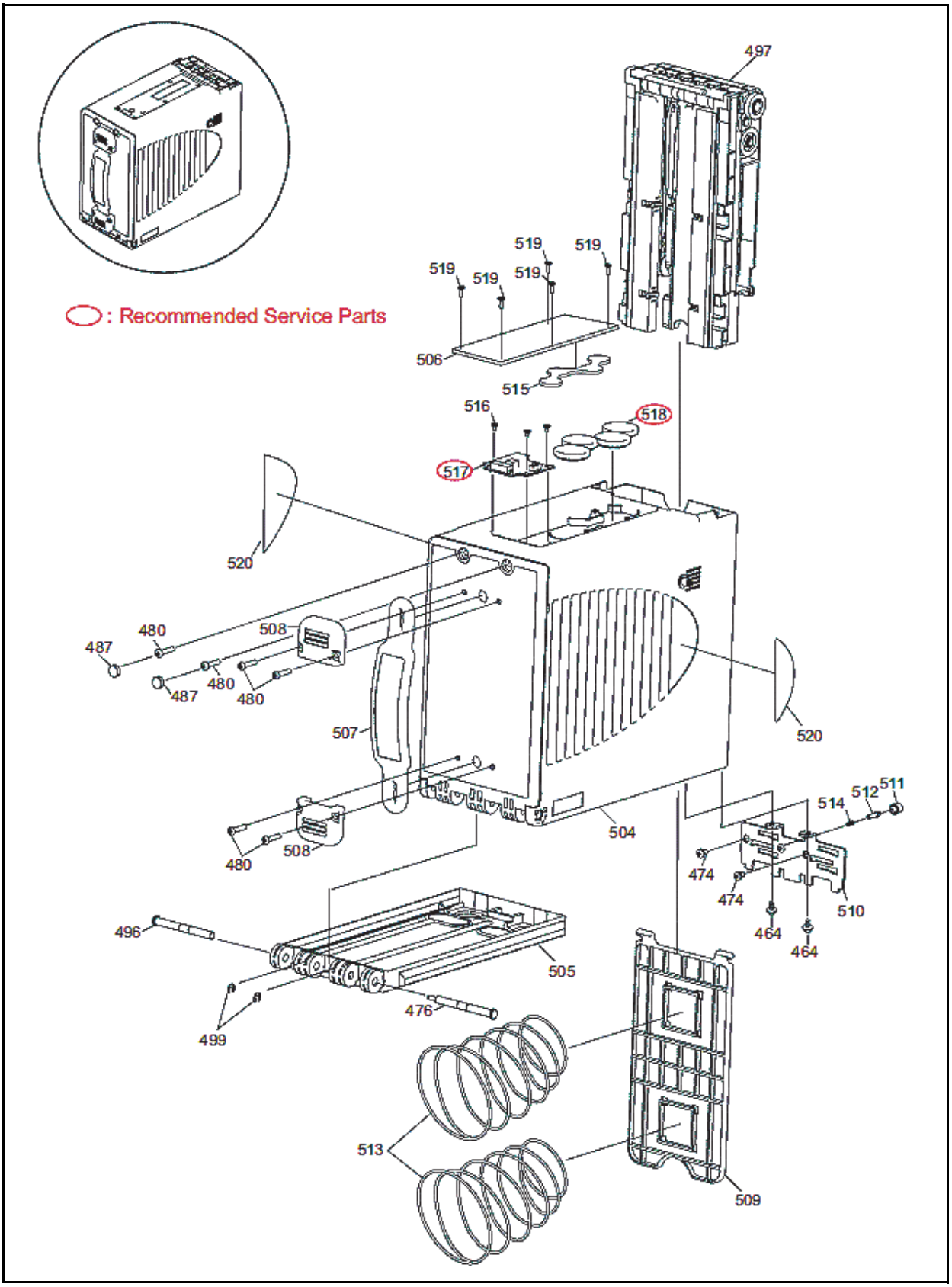



**Figure 118** Large UBA Intelligent Cash Box Exploded View Diagram


© 2012, Japan CashMachine Co., Limited

## Standard & Large Intellegent Cash Box Parts List

**Table 6** UBA Cash Box Unit Parts List

| Ref Nº. | EDP Number | JAC Part Nº. | Description | Qty. | Remarks |
|---|---|---|---|---|---|
| 449 | 005555 | 186-260106R | 2.6X6 PAN HEAD SCREW with Spring and Flat Washer | 4 | |
| 450 | 119247 | 183-250005R | 2.3X5 PHILLIPS SELF TIGHTENING PAN HEAD SCREW and Flat Washer | 2 | |
| 470 | 127280 | 900-101037RA | CASH BOX STACKER | 1 | |
| 471 | 034869 | 250-100047R | LB-02-C BACKUP PLATE SPRING | 2 | |
| 472 | 103173 | 900-100762R | RECEIVER PLATE | 1 | |
| 473 | 131607 | 200-100996R | LOCKING PLATE | 1 | |
| 474 | 108826 | 100-350000R | 3X5 PHILLIPS SELF TIGHTENING SCREW with Washer | 2 | |
| 476 | 104259 | 200-101086RA | FULCRUM SHAFT (1) | 1 | |
| 477 | 104290 | 900-100158R | HANDLE | 1 | For Standard Cash Box |
| | 121968 | 900-200661RA | HANDLE (RED) | 1 | For Standard Cash Box |
| 478 | 106537 | 900-100489R | HANDLE (ICB) | 1 | For Intelligent Cash Box |
| | 121969 | 900-200062RA | HANDLE (ICB) (RED) | 1 | For Intelligent Cash Box |
| 479 | 103171 | 900-100241R | CAP HANDLE | | |
| 480 | 115909 | 171-300014R | 3X10 PHILLIPS SELF TIGHTENING PAN HEAD SCREW | 4 | |
| 481 | 104278 | 950-100151RA | CASH BOX LABEL | 2 | |
| 482 | 103170 | 900-100495R | INTELLIGENT CASH BOX | 1 | For Intelligent Cash Box |
| 483 | 103169 | 900-100494R | INTELLIGENT BOX COVER | 1 | For Intelligent Cash Box |
| 484 | 105875 | 300-100607RA | INTELLIGENT CIRCUIT BOARD | 1 | Recommended Service Parts |
| 485 | 049531 | 171-260008R | 2.6X8 PHILLIPS PAN HEAD SELF TIGHTENING SCREW | 2 | |
| 486 | 113227 | 200-200267R | INTELLIGENT FRAME ASSY | 1 | For Intelligent Cash Box |
| 487 | 113207 | 900-101053RA | CAP | 2 | |
| 488 | 128525 | 200-101064RA | GEAR STUD | 1 | |
| 489 | 125445 | 173-230005R | M2.6X5 FLAT HEAD PLATE SCREW (Small) | 2 | |
| 491 | 113228 | 900-101054RA | CUSHION, INTELLIGENT | 1 | For Intelligent Cash Box |
| 492 | 110029 | 149-000015R | SCREW GUIDE | 1 | |
| 493 | 110080 | 250-100563RA | NIPPLE SPRING | 1 | |
| 494 | 109917 | 200-101100RA | NIPPLE PIN | 1 | |
| 495 | 109916 | 200-101101RA | SOCKET GUIDE | 1 | |
| 496 | 113235 | 200-101102RA | FULCRUM SHAFT (2) | 1 | |
| 497 | 128669 | 900-100422R | UBA-SS CASH BOX PUSHER MECHNISM MP6 | 1 | |
| 498 | 113208 | 900-101041RA | T3 BUSHING | 1 | |
| 499 | 003718 | 100-100046R | CLAMP (#5103-18 4Đò) | 2 | |
| 500 | 121843 | 700-000179R | UBA INTELLIGENT CASH BOX KIT | 1 | |
| 504 | 127705 | 900-200357R | IQ P- BOX | 1 | |


© 2012, Japan CashMachine Co., Limited

**Table 6** UBA Cash Box Unit Parts List (Continued)

| Ref Nº. | EDP Number | JAC Part Nº. | Description | Qty. | Remarks |
|---|---|---|---|---|---|
| 505 | 127709 | 900-200358R | IQ P-BOX DOOR | 1 | |
| 506 | 127710 | 900-200359R | IQ P-BOX ICB COVER | 1 | |
| 507 | 127711 | 900-200360R | IQ P-BOX HANDLE | 1 | |
| 508 | 127712 | 900-200361R | IQ P-BOX HANDLE BRA | 1 | |
| 509 | 127713 | 900-200237R | IQ P-BOX RE PLATE | 1 | |
| 510 | 127706 | 900-200362R | TANG CATCH UBA | 1 | |
| 511 | 127707 | 200-200770R | NIPPLE SOCKET | 1 | |
| 512 | 127708 | 200-200771R | NIPPLE PIN | 1 | |
| 513 | 127714 | 250-100678R | IQ P-BOX SPRING | 2 | |
| 514 | 127715 | 250-100679R | NIPPLE SPRING 2 | 1 | |
| 515 | 127716 | 900-200363R | BATTERY SPONGE | 1 | |
| 516 | 076466 | 171-200041R | 2X4 BINDING PHILLIPS SELF TIGHTENING SCREW | 2 | |
| 517 | 128220 | 300-100436RA | ICB CIRCUIT BOARD | 1 | Recommended Service Parts |
| | 139237 | 200-101140R | REFLECTOR (Standard Cash Box) | 1 | Recommended Service Parts |
| 518 | 128230 | 451-100104RA | BATTERY (CR2450HR T-4 WK) | 1 | Recommended Service Parts |
| | 139239 | 900-200365R | PROTECTION SPONGE (Standard Cash Box) | 1 | Recommended Service Parts |
| 519 | 101172 | 172-100002R | 2X6 BINDING PHILLIPS SELF TIGHTENING SCREW | 5 | |
| 520 | 130307 | 950-171023R | LEFT BOX LABEL | 2 | |
| 521 | 188191 | 701-000211R | Kit, UBA CASH BOX DOOR (500 Note) | 1 | |
| 522 | 141343 | 200-200473RA | INTELLIGENT SUPPORT PLATE | 1 | |


© 2012, Japan CashMachine Co., Limited

## iVIZION Cash Box Unit 1 Exploded View

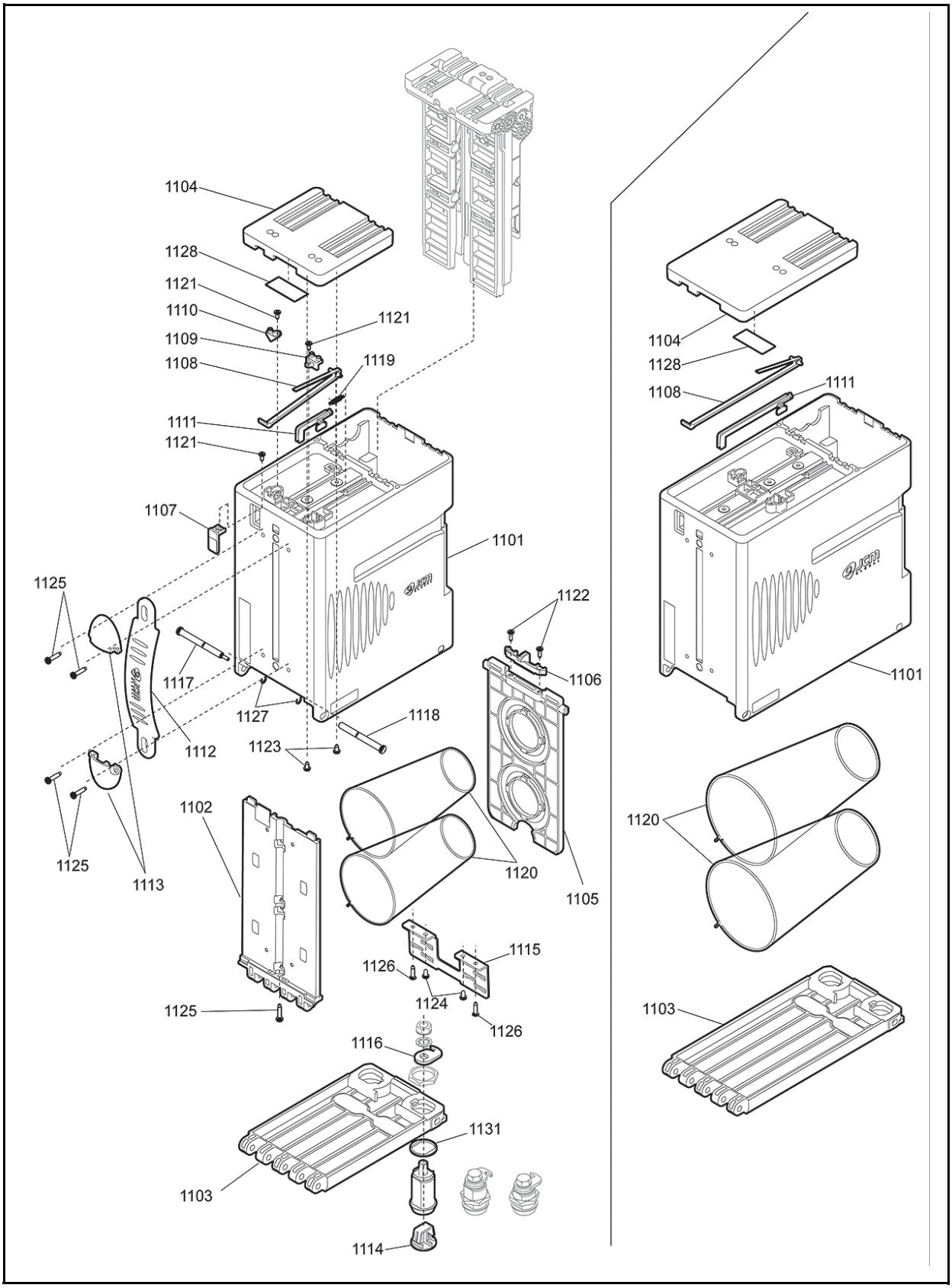



**Figure 119** iVIZION Cash Box Unit 1 Exploded View Diagram


© 2012, Japan CashMachine Co., Limited

## iVIZION Cash Box Parts Lists

**Table 7** iVIZION Cash Box Unit 1 Parts List

| Ref No. | EDP No. | Description | Qty | Remark |
|---|---|---|---|---|
| 1101 | 147907 | Box (S) | 1 | |
| | 148781 | Box (L) | | |
| 1102 | 147908 | Box Base | 1 | |
| 1103 | 147909 | Box Door (S) | 1 | |
| | 148782 | Box Door (L) | | |
| 1104 | 147910 | Box Cover (S) | 1 | |
| | 148783 | Box Cover (L) | | |
| 1105 | 147911 | Presser Plate | 1 | |
| 1106 | 147912 | Plate Stopper | 1 | |
| 1107 | 147941 | Indicator Window | 1 | |
| 1108 | 147942 | Indicator Arm (S) | 1 | |
| | 148785 | Indicator Arm (L) | | |
| 1109 | 147943 | Box Prism (Near-Full) | 1 | |
| 1110 | 147944 | Box Prism (State) | 1 | |
| 1111 | 147945 | Lever Nearly Full (S) | 1 | |
| | 148784 | Lever Nearly Full (L) | | |
| 1112 | 147946 | Handle | 1 | |
| 1113 | 147947 | Handle Cover | 2 | |
| 1114 | 148472 | Key Cover | 1 | |
| 1115 | 147794 | Lock Bracket | 1 | |
| 1116 | 147795 | Lock Plate | 2 | |
| 1117 | 147934 | Box Shaft (1) | 1 | |
| 1118 | 147935 | Box Shaft (2) | 1 | |
| 1119 | 147990 | Home Position Lever Spring | 1 | |
| 1120 | 114526 | Cash Stock Spring | 2 | |
| | 127714 | IQ P-Box Spring | | |
| 1121 | 104418 | 2.6x6 Phillips, Self Tightening, Binding 3M Screw (Black) | 3 | |
| 1122 | 056165 | 2.6x8 Phillips, Self Tightening, Binding 3M Screw | 2 | |
| 1123 | 187735 | 3x6 Pan NONSERT Head Screw | 2 | |
| 1124 | 060794 | 3x12 Flathead, Phillips, Self Tightening 3M Screw | 2 | |
| 1125 | 185201 | 3x14 Phillips, Self Tightening, Pan Head 3M Screw (Black) | 5 | |
| 1126 | 006037 | M3 x 12 Pan Head Screw with W Washer 3M | 2 | |
| 1127 | 003718 | Crescent Snap Ring | 2 | |
| 1128 | 146785 | RFID Tag | 1 | |
| 1129 | 192745 | Indicator Cover (S) | 1 | |
| | 192746 | Indicator Cover (L) | 1 | |
| 1130 | 140958 | 2.6x5 Ruminate 3M Screw | 5 | |
| | | | 9 | |
| 1131 | 059086 | Key Spacer | 1 | |


© 2012, Japan CashMachine Co., Limited

## Metal Cash Box Modification Kit Exploded View

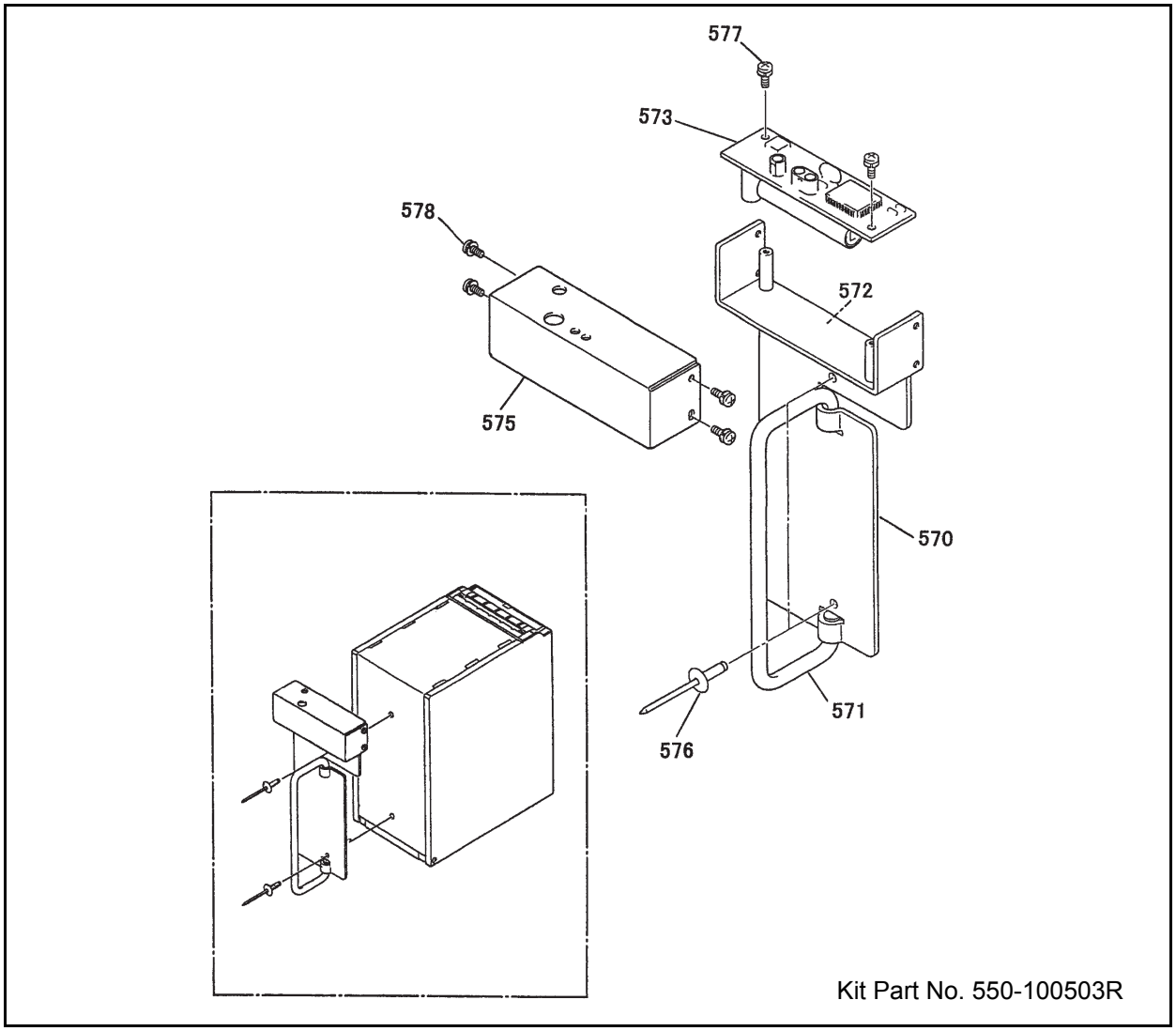



**Figure 120** Metal Cash Box Retrofit Kit Exploded View Diagram


© 2012, Japan CashMachine Co., Limited

## Metal Cash Box Modification Kit Parts List

**Table 8** Metal Cash Box Modification Parts List Table

| No. | EDP No. | JAC No. | Description | Qty. |
|---|---|---|---|---|
| 570 | 067110 | Part of Kit* | IT Base Assembly | 1 |
| 571 | 067084 | Part of Kit* | IT Handle | 1 |
| 572 | 081042 | Part of Kit* | IT Sponge | 1 |
| 573 | 067085 | 300-100186R | Intelligent Circuit Board | 1 |
| 574 | 081052 | Part of Kit* | Reinforcement Board | 1 |
| 575 | 067111 | Part of Kit* | IT Cover | 1 |
| 576 | 056762 | Part of Kit* | Rivet (Sealed Type) | 2 |
| 577 | 000555 | Part of Kit* | Pan Screw w/washer CM (S) | 2 |
| 578 | 023755 | Part of Kit* | Pan Screw w/washer CM (S) | 4 |

* Use JAC Kit Assembly No. 701-100084R for the WBA ICB Handle.


© 2012, Japan CashMachine Co., Limited

# 29 Troubleshooting

This section provides troubleshooting procedures for the JCM Intelligent Cash Box (ICB) System. Information on alleviating operational issues and/or isolating faults is provided for the following items:

- ICB Ticket Application
- MDM2 Application
- ICB Read-Write Tool
- ICB Cash Boxes
- Initialization Error Codes
- Cash Box Memory Modules
- Battery Test Procedures.

If the error or issue remains unresolved, contact JCM Technical Support for further assistance. JCM operates a "24/7" USA Technical Support Hotline which can be reached at the following Telephone number: (800) 683-7248. Select Option 5 if calling in after normal operating hours.

## ICB Ticket Application

The ICB Ticket Application supports the generation and printing of Machine Number Tickets, Enable Tickets, and Disable Tickets. The following FAQs are applicable:

**Q.** The program is not communicating with the Ticket Printer, or, the Ticket Printer does not print a Ticket when the 'Print Start' Screen Button is Mouse-clicked.

**A.** Check each of the following conditions:

1. Verify that a serial cable connection exists between the Ticket Printer and the Host PC on which the ICB Ticket Application is installed.
2. Verify that the Power Switch at the rear of the Ticket Printer is set to the 'ON' or '1' position and that the Green 'Power' LED is lit.
3. Verify that the Ticket Printer's Paper Tray has Fan-fold Ticket Paper installed and that the Paper is properly fed into the Printer's feed mechanism.
4. Verify that the ICB Ticket Application has established communications with the Ticket Printer by performing the following Steps:
   - Start the ICB Ticket Application and Mouse-click on the large **'Poll Start'** Screen Button (See Figure 121 a).
   - Verify that the COM settings for communicating with the Printer are set correctly, and then Mouse-click on the large **'SET'** Screen Button shown in Figure 122a.

*NOTE: If the ICB Ticket Application and the attached Printer are communicating properly, the 'TX-data' and 'RX-data" Fields will show communication activity, and the 'Comm status' Field will indicate data is being received (See Figure 123 a, b & c respectively).*

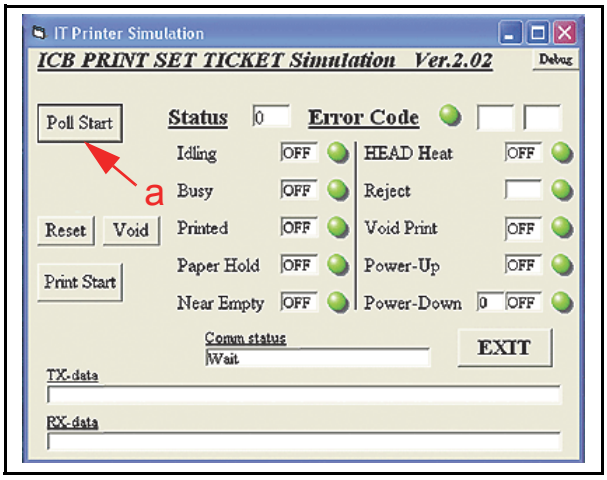



**Figure 121** Communications Settings Screen

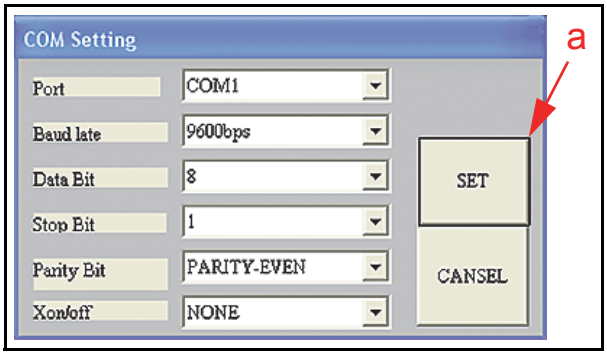



**Figure 122** Printer Communications Screen

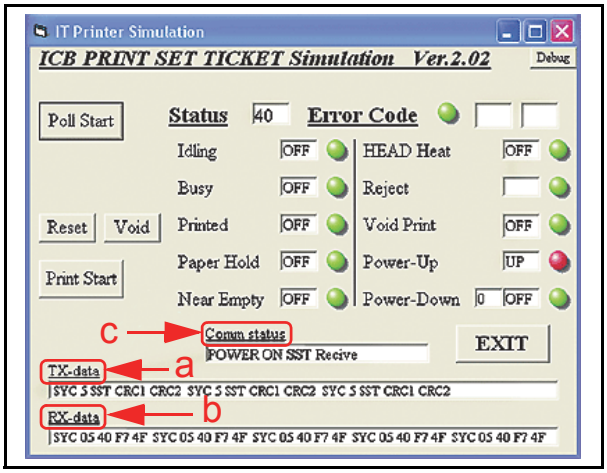



**Figure 123** Communications Error Screen

If the ICB Ticket Application and the attached Printer are still not communicating properly, the ICB Ticket Screen will likely appear as shown by the in Figure 124 example. The '**TX-data**' Field example shows activity that represents data being sent from the Host PC to the Printer; but the '**RX-data**' Field shows that no activity occurred (e.g., no Printer response), and the '**Comm status**' Field indicates an associated Error Message (Figure 124 a, b & c respectively).


© 2012, Japan CashMachine Co., Limited

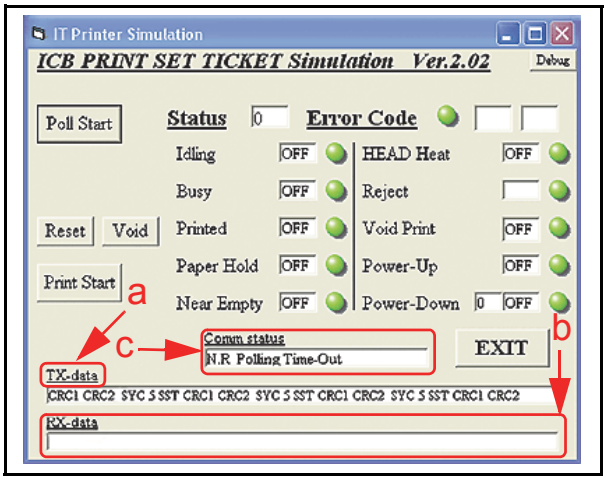



**Figure 124** Communications Error Example Screen

Use the '**Comm status**' Error Message Information to help isolate the issue. A '…**Time-Out**' Error Message usually indicates a lack of communication due to a Cable connection issue, or an improper COM Port Setting.

**Q**. The '**Enable Ticket**', '**Disable Ticket**', or '**Machine No. Ticket**' that was printed by the ICB Ticket Program is being rejected by the Bill Validator where it was inserted.

**A.** If the Bill Validator is operating properly, it will accept the 'Enable Ticket', hold it for 3 - 5 Seconds, and then reject it. If however, the Bill Validator rejects the Ticket too soon, or if the ICB Function is found not enabled, try one of the following:

1. If the Bill Validator is a WBA, verify that the Bezel Lights flash rapidly while the 'Enable Ticket' is being held.
2. If the Bill Validator is a UBA, verify that the Green Diagnostic Light flashes three (3) times after returning the Ticket.
3. Ensure that DIP Switches #1, #3, and #8 on the Bill Validator are set to the 'ON' position.
4. If the DIP Switches were not set, or were set improperly, then set Bill Validator DIP Switches #1, #3, and #8 to the 'ON' position, re-cycle Power to the Validator, and try inserting the Ticket again.

   *NOTE: Some Validators are more sensitive than others to differences in Ink and Paper types. If the Ticket isn't accepted at its first insert, try re-inserting it several times.*

5. In order to eliminate a smudged Ticket, an improperly coded Ticket, or some other Printer error as the cause of the issue, use the ICB Ticket Program to print a new Ticket and insert it into the Validator in place of the erroneous suspect Ticket.

*NOTE: If a new 'Enable Ticket' is being printed, verify or enter text as necessary so that the ICB Ticket Form-1 Screen indicates the following:*

- *The words '**Enable Ticket**' as shown in Figure 125a are present.*
- *14 (Fourteen) 1's (Ones) exist in the '**Machine Code**' data Entry Field as shown in Figure 125b.*
- *An Attribute Code of '**03**' appears in the '**Attr Bar-Code**' data Box as shown in Figure 125c.*

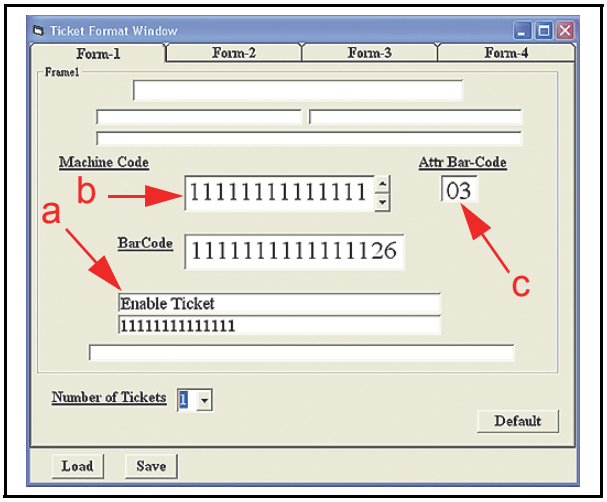



**Figure 125** Enable Ticket Set-up Screen

*NOTE: If a new 'Disable Ticket' is being printed, verify or enter text as necessary so that the ICB Ticket Form-1 Screen indicates the following:*

- *The words '**Disable Ticket**' as shown in Figure 126a is present.*
- *14 (Fourteen) 0's (Zeros) exist in the '**Machine Code**' data Entry Field as shown in Figure 126b.*
- *An Attribute Code of '**02**' appears in the '**Attr Bar-Code**' data Box as shown in Figure 126c.*

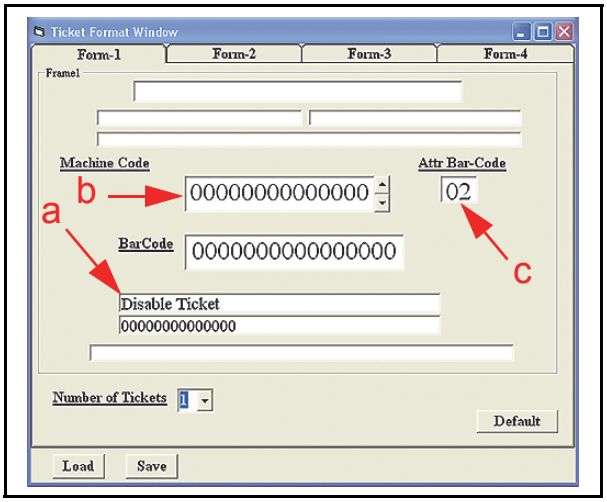



**Figure 126** Disable Ticket Set-up Screen


© 2012, Japan CashMachine Co., Limited

*NOTE: If a new 'Machine Ticket' is being printed, verify or enter text as necessary so that the ICB Ticket Form-1 Screen indicates the following:*

- *The words '**Machine No.**' as shown in Figure 127a is present.*
- *A Machine or Asset Number of up to 14 (Fourteen) Digits exist in the '**Machine Code**' data Entry Field as shown in Figure 127b.*
- *An Attribute Code of '**01**' appears in the '**Attr Bar-Code**' data Box as shown in Figure 127c.*

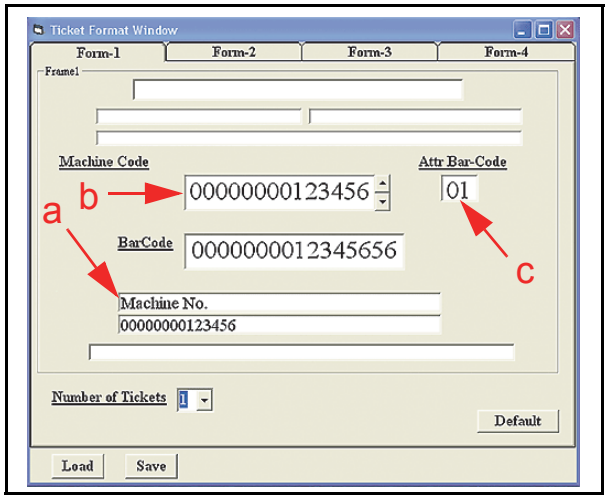



**Figure 127** Machine №. Ticket Set-up Screen

## MDM2 Application

The MDM2 (Multi-Download Module Program 2) is used in the Soft Count Room. When used with a Read-Write Tool the Application reads data from ICB enabled Cash Boxes, clears the Cash Box Memory Circuit, and stores the retrieved data to a File on the Host PC.

The following FAQs are applicable:

**Q.** The MDM2 Main Screen is showing only one 'Station Status' indicator at a site where several Read-Write Tools actually exist.

**A.** MDM2 requires that a separate PC COM Port be used for each Read-Write Tool connected to the Host PC. Use the 'System Settings, Serial Ports' Option to add and enable additional COM Ports to MDM2. Step-by-Step instructions for selecting and working with COM Ports are provided in the '"Setting MDM Communication Ports" on page 18' in Section of this Service Manual.

**Q.** The 'Station Status' indicator on the MDM2 Main Screen (See Figure 129 a) shows a constant Red-colored '**Timeout**' condition for one or more of the Read-Write Tools connected to the System.

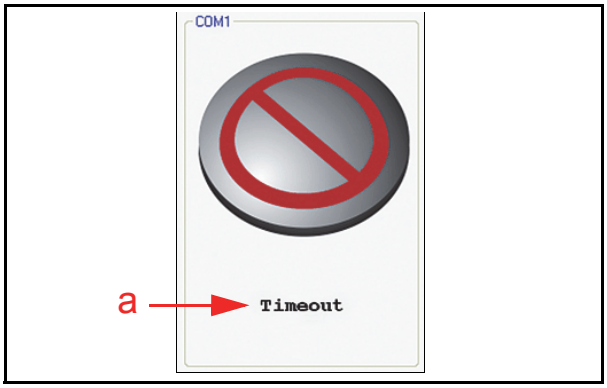



**Figure 128** Timeout Status Indicator Screen

**A.** There are several conditions that can cause a "**Timeout**" condition to occur.
Check the following if this Symbol appears:

1. On the rear of the Silver or Black Read-Write Tool, verify that 115 VAC Power is applied to the Power Input Connector (See Figure 129 a & Figure 130 a).
2. Check that the Silver or Black Read-Write Tool Power Switch is set to the 'ON' or '1' position (See Figure 129 b [Switch shown ON] & & Figure 130 b [hidden from view Switch located on side of Black R/W Tool]).
3. Check that a Serial communications Cable connection exists between the upper Female DB-9 Connector on the Silver Read-Write Tool (See Figure 129 c), or the left Female DB-9 Connector on the Black Read-Write Tool (See Figure 130 c); and the Serial Port of the Host PC where the MDM2 Application is installed.

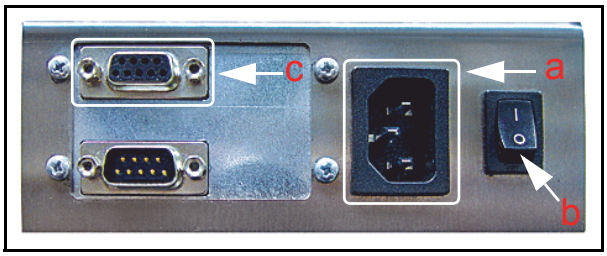



**Figure 129** Silver Read-Write Tool Rear View

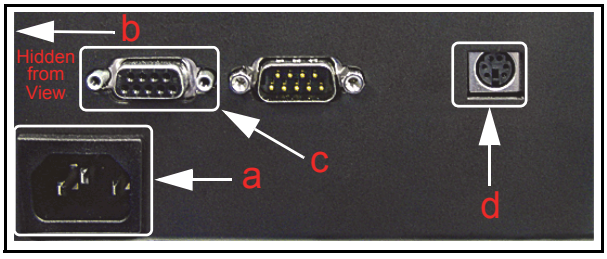



**Figure 130** Black Read-Write Tool Rear View

*NOTE: The 6-pin DIN Receptacle shown in Figure 130d is for the 2000 Note Cash Box Tentacle Option Connector (See Figure 134 c & Figure 135) for further information concerning this Connector Receptacle and its related Tentacle*


© 2012, Japan CashMachine Co., Limited

4. If the ICB System installed uses a 4-Port PCI to RS-232 Interface Connection such as the SIIG LP-P40011 Cable Set shown in Figure 131, check that the following conditions exist:
   - Ensure that the PCI Circuit Card is properly inserted into the PC
   - Ensure that the appropriate Driver Software is installed
   - Ensure that the 44-Pin Connector is seated in the I/O Port receptacle on the PCI Circuit Card, and that the four (4) DB-9 Serial Connectors are fitted to the upper Female DB-9 Connectors on their respective Read-Write Tools (Review Figure 129 c & Review Figure 130 c).
5. Check the Blue-colored LCD Display on the respective Read-Write Tool. If the Display shows the message 'PC NOT ON LINE'; this indicates a communications situation exists, and that the related Read-Write Tool is not talking to the MDM Application via the designated PC COM Port selected on the MDM2 Serial Ports Setup Screen.

**Figure 131** 4-Port RS-232 to 44-Pin Adaptor Cable

## Isolating Communications Problems

### DB-9 TO DB-9 CONNECTOR CABLE

If only one Read-Write Tool is in use, and the Serial connection is between the DB-9 Connector of the Read-Write Tool to the DB-9 Serial Port of the Host PC then proceed as follows:

1. On the Host PC, access the System 'Device Manager' Dialog Screen and Browse down and locate the 'Ports (COM & LPT)' selection.

   *NOTE: The System Device Manager is usually located by right Mouse-clicking on the "My Computer" Desktop Icon; selecting "Properties" from its Menu; and "Hardware" from the various Tabs that appear.*

2. From the list of designated Ports present, right Mouse-click on 'Communications Port COM1' and select 'Properties' from its Pull-down Menu.
3. On the 'COM1 Properties' Screen, verify that the 'Device Status' Field indicates 'This device is working properly'.
4. Exit the 'Device Manager/Hardware/Properties' Dialog Screen.
5. On the MDM2 Application Main Screen, Mouse-click on the 'Administration' Pull-down Menu and select 'System Settings' from the list.
6. When the 'System Settings' Screen appears, Mouse-click on the 'Serial Ports' Tab (Review Figure 73). When the 'Serial Ports' configuration Screen appears, verify that 'COM1' is listed in the 'In Use' Box. If any other COM Ports are listed in the 'In Use' Box, Mouse-click to select them, and click on the Green-colored RIGHT Arrow Screen Button to send them back to the 'Available' selection Box.
7. Exit and re-start the MDM2 Application.

### DB-9 TO USB SERIAL CONVERTER

If only one Read-Write Tool is in use, and the Serial connection is between the DB-9 Connector of the Read-Write Tool to a Host PC via a USB to Serial Converter then proceed as follows:

1. On the Host PC, access the System 'Device Manager' Dialog Screen and Browse down and locate the 'Ports (COM & LPT)' selection.

   *NOTE: The System Device Manager is usually located by right Mouse-clicking on the "My Computer" Desktop Icon; selecting "Properties" from its Menu; and "Hardware" from the various Tabs that appear.*

2. From the list of designated Ports present, find the COM Port Number (e.g., COM14) assigned to the USB-to-Serial Converter.
3. Right Mouse-click on this COM Port and select 'Properties' from the list provided.
   On the 'Properties' Screen that appears for the selected COM Port, verify that the 'Device Status' Field indicates 'This device is working properly'.
4. Exit the 'Device Manager/Hardware/Properties' Dialog Screen.
5. On the MDM2 Application Main Screen, Mouse-click on the 'Administration' Pull-down Menu and select 'System Settings' from the list.
6. When the 'System Settings' Screen appears, Mouse-click on the 'Serial Ports' Tab (Review Figure 73). When the 'Serial Ports' configuration Screen appears, verify that the USB-to-Serial Converter COM Port Number (i.e. COM14) is listed in the 'In Use' Box.

   *NOTE: If the COM Port Number assigned is not listed in the 'In Use' Box, then Mouse-click to select the appropriate COM Port Number from the 'Available' Box, and Mouse-click on the Green-colored LEFT Arrow Screen Button to send it to the 'In Use' Box.*

7. If any other COM Ports are listed in the 'In Use' Box, Mouse-click to select them, and click on the Green-colored right Arrow Screen Button to send them back to the 'Available' selection Box.
8. Exit and re-start the MDM2 Application.


© 2012, Japan CashMachine Co., Limited

## 4-Port RS-232 to 44-pin PCI Adapter Cable

If multiple Read-Write Tools are in use, and the Serial connections to the Host PC are being made via a 4-Port RS-232 to 44-pin PCI Adapter Cable (Review Figure 131), a common symptom that occurs is that one or more Read-Write Tool may be indicating a '**Timeout**' condition. If this situation is occurring proceed as follows:

1. On the Host PC, access the System 'Device Manager' Dialog Screen and Browse down and locate the 'Ports (COM & LPT)' selection.

   *NOTE: The System Device Manager is usually located by right Mouse-clicking on the "My Computer" Desktop Icon; selecting "Properties" from its Menu; and "Hardware" from the various Tabs that appear.*

2. From the list of designated Ports present, find the four (4) COM Port Numbers that are assigned to the 4-Port Interface Adapter Cable (i.e., COM8, COM9, COM10 & COM11).
3. For each COM Port listed, right Mouse-click on that COM Port Number and select 'Properties' to open the associated COM Port Properties Dialog Screen.
4. On each 'Properties' Dialog Screen, verify that the 'Device Status' Field indicates 'This device is working properly'.
5. Exit the 'Device Manager/Hardware/Properties' Dialog Screen.
6. On the MDM2 Application Main Screen, Mouse-click on the 'Administration' Pull-down Menu and select 'System Settings' from the list.
7. When the 'System Settings' Screen appears, Mouse-click on the 'Serial Ports' Tab (Review Figure 73). When the 'Serial Ports' configuration Screen appears, verify that all four (4) of the above aforementioned COM Ports are listed in the 'In Use' Box.

   *NOTE: If the COM Port Number assigned is not listed in the 'In Use' Box, then Mouse-click to select the appropriate COM Port Number from the 'Available' Box and click on the Green-colored LEFT Arrow Screen Button to send it to the 'In Use' Box.*

8. If any other COM Ports are listed in the 'In Use' Box (and are NOT being used for other Read-Write Tools), Mouse-click to select them, and click on the Green-colored right Arrow Screen Button to send them back to the 'Available' selection Box.
9. Exit and re-start the MDM2 Application.

*NOTE: When working with the Multi-port Adapter Cable, up to four (4) PC COM Ports can be in use simultaneously in MDM2 at any time. The Read-Write Tool Status Indicator on the MDM2 Main Screen will reflect the number of the COM Port to which each Read-Write Tool is presently communicating (i.e: COM1, COM3, COM13, etc.). This provides easy identification of which COM Port is operationally active.*

**Q.** The MDM2 Application is not communicating with the Ticket Printer.

**A.** MDM2 provides Printer Alert Messages based on status information received via the Read-Write Tool. If a Printer is not communicating, and the MDM2 Station Status Indicator displays a Message indicating a "**Printer error**" as shown in Figure 132, check for the following conditions:

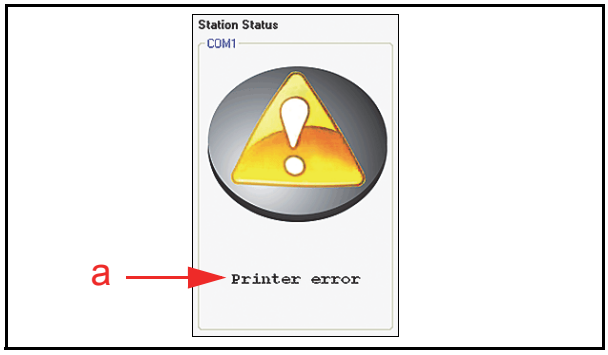



**Figure 132** Printer Error Indicator Screen

1. On the rear of the Silver Read-Write Tool, verify that a Serial Cable connection exists between the lower Male DB-9 Connector on the Silver Read-Write Tool (See Figure 133 a) and the Serial Connector of the Ticket Printer.
   On the rear of the Black Read-Write Tool, verify that a Serial Cable connection exists between the right Male DB-9 Connector on the Read-Write Tool (See Figure 133 a) and the Serial Connector of the Ticket Printer.

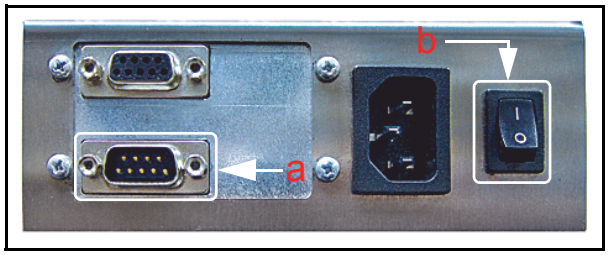



**Figure 133** Silver Read-Write Tool DB-9 Male Connector and Power Switch Locations

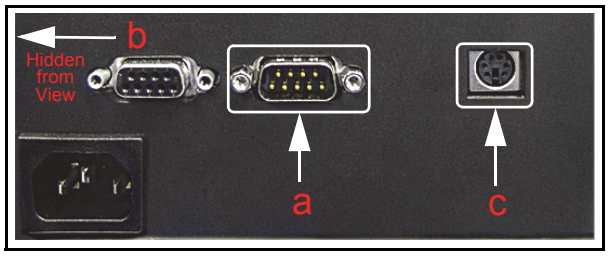



**Figure 134** Black Read-Write Tool DB-9 Male, 6-pin DIN Connector and Power Switch Locations

*NOTE: The 6-pin DIN Receptacle shown in Figure 134c is for the 2000 Note Cash Box Tentacle Option output Connector shown in Figure 135.*


© 2012, Japan CashMachine Co., Limited

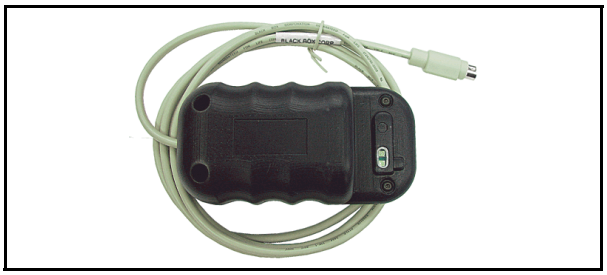


**Figure 135** 2000 Note Cash Box Tentacle Option

2. On the rear of the Ticket Printer, verify that 115 VAC Power is applied to the Power Input Connector and that the Ticket Printer Power Switch is set to the 'ON' or '1' Position when available.
3. Cycle power to the Read-Write Tool by toggling its Power switch ON/OFF/ON (See Figure 133 b & Figure 134) and look at the Blue-colored LCD Display as the Read-Write Tool powers up. The display will indicate "PRINTER: xxxxxx" (where 'xxxxxx" represents the type of Printer to which the Read-Write Tool is currently configured for communications).
   Verify that the Printer Type displayed matches the Printer connected to the Read-Write Tool Printer Port. If not, contact JCM Technical Support for assistance in re-configuring the Read-Write Tool.
4. Look at the Blue-colored LCD Display on the Read-Write Tool. If the Display shows a 'PRINTER NOT READY' message, it indicates that a communications situation still exists between the Printer and the Read-Write Tool. Try exchanging Printers and Serial Cables with known good Cables. If a communications error still exists, contact JCM Technical Support for help with re-configuring the Read-Write Tool.
   On the Black Read Write Tool the Front Panel LED Indicator will Flash either Red, Green or Blue depending on the following Status conditions:
   - Red = No ICB Communication
   - Green = ICB Communication OK
   - Blue = Ready for Docking.

If the Printer is communicating, but has run out of Paper, either Read-Write Tool's Status Indicator will display a message indicating "**Printer out of paper**" (See Figure 136 a) in MDM2. Add paper as necessary.

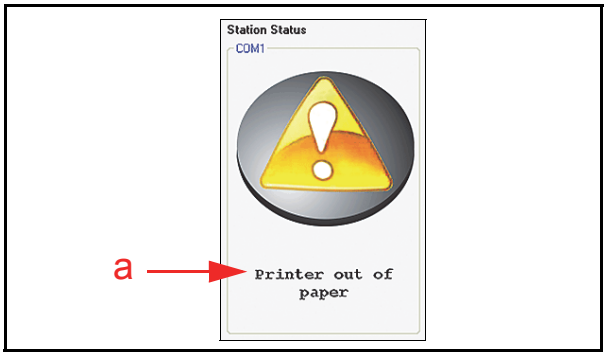



**Figure 136** No Printer Paper Indicator Screen

**Q.** The Ticket Printer is not printing a Ticket after the Read-Write Tool reads and clears the Cash Box.

**A.** Recycle power to the Silver Read-Write Tool and look at the Blue-colored LCD Display as the Silver Read-Write Tool powers up. The display will indicate "PRINTER: xxxxxx" (where 'xxxxxx" represents the type of Printer to which the Silver Read-Write Tool is currently configured for communications). If the display indicates "PRINTER: NONE", it indicates that no Printer has been selected for use, and that the MDM2 Application is working properly. Contact JCM Technical Support for assistance in re-configuring the Read-Write Tool to work with a specific Printer.

## ICB Read-Write Tool

**Q.** The ICB Web Reports Date and Time reported when a Cash Box is docked during Soft Count does not match the actual time the Soft Drop occurred.

**A.** The Read-Write Tool gets its Date and Time information from the Host PC on which the MDM2 Application is running. The Date/Time Update Function is normally automatic. Try the following if the Date/Time Stamp is incorrect:

1. Check the Date and Time information set on the Host PC itself, and correct it if necessary.
2. With the MDM2 Program active, recycle Power to the related Read-Write Tool and view the Blue-colored LCD Display. Verify that the related Read-Write Tool updates and displays the correct Date and Time. If it does not, the Date and Time will need to be set manually via internal configuration. Contact JCM Technical Support for assistance in performing this particular operation.

## ICB Cash Boxes

**Q.** When placing a Cash Box onto a Read-Write Tool, the MDM2 Status Indicator will display a message indicating "**Unable to communicate with cashbox**", as shown in Figure 137 a.

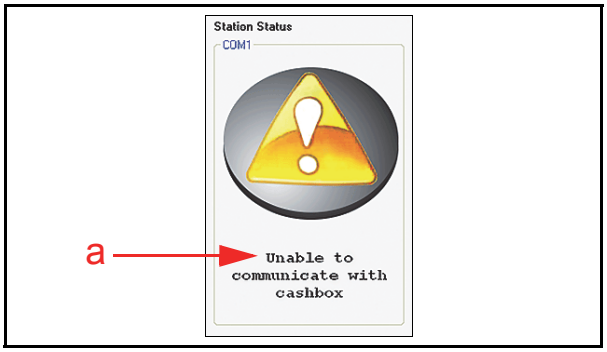



**Figure 137** Unable to Communicate Indicator 2

**A.** When this type of error occurs, try one or more of the following processes:

1. Remove and re-seat the Cash Box onto the Read-Write Tool for a second read attempt.


© 2012, Japan CashMachine Co., Limited

2. Use clean Micro-fiber cloth to wipe the Optical Sensors on both the Cash Box Memory Module and on the Read-Write Tool. Re-seat the Cash Box onto the Read-Write Tool for another read attempt.
3. Verify that the ICB Enable Switch located on the Cash Box Memory Module is set to the '**On**' position. The Switch is located adjacent to, and above the Cash Box Optical Sensors on the Cash Box Memory Module Assembly as shown in Figure 138.

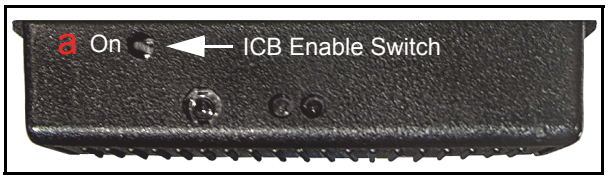



**Figure 138** ICB Memory Module Switch Location

4. If the misreading situation still persists, the Memory Module's Battery may be asleep or defective. Refer to the Cash Box Memory Module "Battery Test Procedures" on page 56 of the Service Manual for testing and refreshing procedures, and for further troubleshooting instructions and possible solutions to solve the issue.

**Q.** When placing a Cash Box onto a Read-Write Tool, no Asset Number; an incorrect Asset Number; a corrupted Asset Number, or a value of Zero (0) is displayed by the MDM2 Application in the Asset Number Data Field.

**A.** These situations indicates that the Cash Box failed to properly record and report the Asset Number from the Game Platform into which it was installed. Try one or more of the following to resolve the situation:

1. The Cash Box may not have been seated properly in the Bill Validator. Re-seat the Cash Box in the Bill Validator, and check again to see if the Asset Number is reported.
2. Verify that the Bill Validator from which the Cash Box was removed actually has an Asset Number assigned to it. If it does, verify that the Number is correct, and that it matches the Asset Number of the Game Platform into which it was installed.
3. If the Bill Validator does not contain an Asset Number; or the Asset Number is corrupted; or the wrong Asset Number is being provided, follow the instructions provided for using the ICB Ticket Program to Print a new 'Machine No.' Ticket for reinsertion into the Validator.
4. The ICB Circuit in the Bill Validator may not be enabled. Follow the instructions provided in "Tickets and Printers" on page 31 for using the ICB Ticket Program to Printing a new 'Enable' Ticket for insertion into the Validator.
5. The ICB Circuit in the Cash Box Memory Module may not have been enabled. Verify that the Memory Module's Enable Switch is set to the '**On**' position (Review Figure 138 a).

**Q.** When placing a Cash Box on to a Read-Write Tool, no Cash Box Number, or a corrupted Cash Box Number Value is reported in the 'Cashbox' data Field on the MDM2 Main Screen.

**A.** The Cashbox Number may not have been read or was read incorrectly. Try re-seating the Cash Box onto the Read-Write Tool again. MDM2 will automatically assign a new Cashbox Number to any Cash Box that shows a No Cashbox Number Value. For information on Cash Box numbering, refer to "Setting MDM Cash Box Numbers" on page 19 of this Service Manual.

**Q.** When placing a Cash Box onto a Read-Write Tool, the 'Read Status' data Field located on the MDM2 Main Screen indicates 'No Data'.

**A.** If the Cash Box in question contains no Banknotes, it may be a valid indication that the Cash Box has "No Data" to report. If the Cash Box in question contains Banknotes, it indicates a failure to transfer data (either from the Bill Validator to the Cash Box, or from the Cash Box to the Read-Write Tool). Try re-seating the Cash Box onto the Read-Write Tool to see if the data can then be read.
If not, perform a manual cash count, and then ensure that the Cash Box is fully seated in the associated Game Platform for its next operational cycle.

**Q.** When placing a Cash Box onto a Read-Write Tool, the 'Read Status' Data Field on the MDM2 Main Screen indicates 'Checksum Error'.

**A.** This condition indicates that the Checksum Value calculated by MDM2 for the data stream just read from the Cash Box, does not match the Checksum Value stored in the data stream itself. Check each of the following to resolve the situation:

1. Re-seat the Cash Box onto the Read-Write Tool for a second read attempt.
2. Verify that ICB is enabled in the associated Bill Validator.
3. Check that the ICB Enable Switch on the Cash Box Memory Module is in the '**On**' Position (Review Figure 138 a). If the failure persists, it may be due to a lost or corrupted Data Bit in the Memory Circuit, a defective Memory Module, or a sleeping Memory Module Battery.
4. If the reading situation still persists, the Memory Module's Battery may be asleep or defective. Refer to the Cash Box Memory Module "Battery Test Procedures" on page 56 for testing and refreshing procedures and for further troubleshooting instructions and possible solutions.

**Q.** When placing a Cash Box onto a Read-Write Tool, the 'Initialization Status' data Field on the MDM2 Main Screen indicates 'Not Initialized'.


© 2012, Japan CashMachine Co., Limited

**A.** Indicates that the Memory Circuit in the Cash Box Memory Module has not been cleared, and that Asset related Data is still present. Try the following to resolve the situation:

1. Re-dock the Cash Box onto the Read-Write Tool again to re-initialize the Memory Module.
2. Check the MDM2 Program Data Erase Option settings to ensure that MDM2 is not operating in "Read Only" Mode. If so, change the settings back to the "Read and Erase" Mode.
3. Dock the Cashbox again in order to initialize it.

## Initialization Error Codes

**Q.** When the Cash Box is inserted into an Asset (Game Platform), the UBA issues three (3) Red LED Flashes.

**A.** This situation indicates that all ICB components are present, but the ICB Feature is not enabled in the Validator. Try the following to resolve this situation:

1. Remove and re-install the Cash Box to ensure that it is properly seated and reading properly.
2. Print-out and insert an ICB "ENABLE" Ticket for the associated Bill Validator.
3. Print-out and insert a "Machine No" Ticket for the associated Bill Validator.

**Q.** When the Cash Box is inserted into an Asset (Game Platform), the UBA issues 11 Red LED Flashes.

**A.** This situation indicates that an ICB communication failure has occurred. Try the following to resolve the situation:

1. Re-seat the Cash Box.
2. Verify that the IR Communication Path is not obstructed.
3. Use a clean Micro-fiber Cloth to wipe the Optical Sensor Lenses clean on both the Cash Box and on the Bill Validator.
4. Ensure that the ICB Enable Switch located on the Cash Box Memory Module is set to the '**On**' Position.
5. Replace the Cash Box and send it to the in House Slot Technicians for Memory Module Battery testing.

**Q.** When the Cash Box is inserted into an Asset (Game Platform), the UBA issues 12 Red LED Flashes.

**A.** This situation indicates that an ICB Check Sum Error has occurred. Try the following to resolve the situation:

1. Re-seat the Cash Box.
2. If the failure repeats, it indicates that the ICB Data is corrupt. Exchange the Cash Box and take the failed Cash Box to Soft Count to be cleared and returned to service.

**Q.** When the Cash Box is inserted into an Asset (Game Platform), the UBA issues 13 Red LED Flashes.

**A.** This situation indicates an Asset Number Mismatch occurred, indicating that the Asset Number in the Bill Validator does not match the Asset Number in the ICB memory.

1. This condition may be due to the Bill Validator having been exchanged without re-programming the Asset Number. Print-out and insert a correct Asset Number Ticket for the Bill Validator.
2. This condition may also be due to a Cash Box that was removed from one Game (Asset) and installed into another; or, one that was not cleared in Soft Count. In this case, the Cash Box must be replaced and taken to Soft Count to be cleared and returned to service.

**Q.** When the Cash Box is inserted into an Asset (Game Platform), the UBA issues 14 Red LED Flashes.

**A.** ICB is indicating that the Cash Box is "Not Initialized". Try the following to resolve the situation:

1. This situation is possibly due to a loss of Power to the Memory Module. Try re-seating the Cash Box.
2. Verify that the ICB Enable Switch located on the Cash Box Memory Module is set to the '**On**' position.
3. Dock the Cash Box in Soft Count to clear its' Memory, and then return it to service.

**Q.** When the Cash Box is inserted into an Asset (Game Platform), the UBA issues 15 Red LED Flashes.

A. This situation indicates an ICB Module failure on the Bill Validator has occurred. Try the following to resolve the situation:

1. Verify that the Bill Validator has an ICB Module installed, and that all Harnesses are properly connected.
2. Inspect the Bill Validator ICB Module for damaged or broken parts.
3. Replace a defective ICB Module on the Bill Validator.
4. Replace a defective CPU Circuit Board or entire Bill Validator.

## Cash Box Memory Modules

For non-responsive Cash Boxes, the situation most likely exists in the Cash Box Memory Module. Try the following to resolve the situation:

1. Using a clean Micro-fiber Cloth, wipe the Memory Module's Optical Sensor Lenses clean to remove any dirt or debris. The Optical Sensors are shown in Figure 139a.

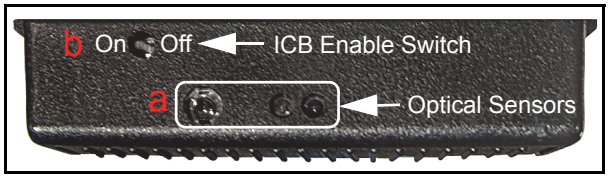



**Figure 139** ICB Memory Module Sensor Locations


© 2012, Japan CashMachine Co., Limited

2. Check the Memory Module and verify that the ICB Enable Switch is set to the left '**On**' Position (See Figure 139 b). ICB functions are disabled when the Switch is set towards the right (e.g., 'OFF' position).
3. Inspect the Memory Module and check for damaged/missing components or broken Solder connections.

*NOTE: Figure 140a shows an example of a Memory Module with a broken battery connection on its left side.*

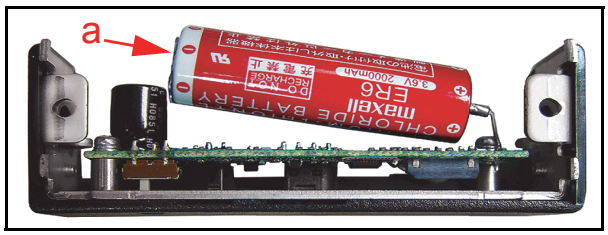



**Figure 140** Broken Left Battery Connection

4. Inspect the Memory Module and check for missing components.

*NOTE: Figure 141a shows a Memory Module with a missing Crystal on its right side.*

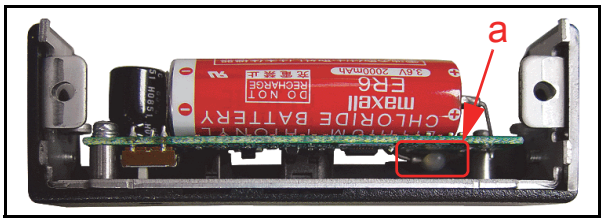



**Figure 141** Missing Memory Module Crystal

## Battery Test Procedures

The Memory Module Battery should be tested under both a "No Load" and "Load" condition to determine its condition.

### No Load Testing

Using a DMM or Voltmeter perform the following:

1. Connect the **Red** Meter Lead to the Positive (+) Battery Terminal, and the **Black** Meter Lead to the Negative (–) Battery Terminal.
2. Verify that a Voltage reading of between 3.60 Volts to 3.68 Volts DC exists.

### Load Testing

Using a DMM or Voltmeter perform the following:

1. Test the Battery under load by attaching a "Refresh Harness" to the Battery. A Refresh Harness is shown in Figure 142.
2. The **Red** Test Clip should be connected to the Positive (+) Battery Terminal, and the **Black** Test Clip should be connected to the Negative (–) Battery Terminal.
3. Using a DMM or Voltmeter, immediately measure the Voltage when the "Refresh Harness" is attached, and then disconnect the "Refresh Harness" from the Battery.

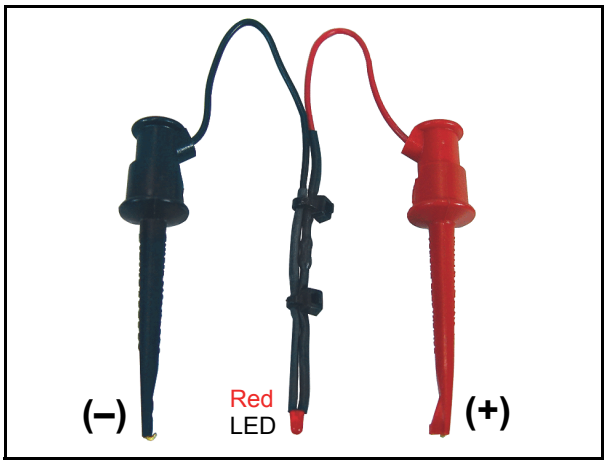



**Figure 142** Battery Refresh Harness Assembly

4. Verify that a Voltage reading of approximately 3.45 Volts DC exists. A voltage reading of 3.15 Volts DC or less indicates that the Battery Module requires refreshing.

### Refresh Procedure

The "Refresh" Procedure is used to reduce the internal resistance that can develop if a Memory Module Battery is unused for a long period of time. To refresh a Memory Module Battery, proceed as follows:

1. Connect the 'Refresh Harness' to the Battery. The **Red** Test Clip should be connected to the Positive (+) Battery Terminal, and the **Black** Test Clip should be connected to the Negative (–) Battery Terminal as shown in Figure 143.

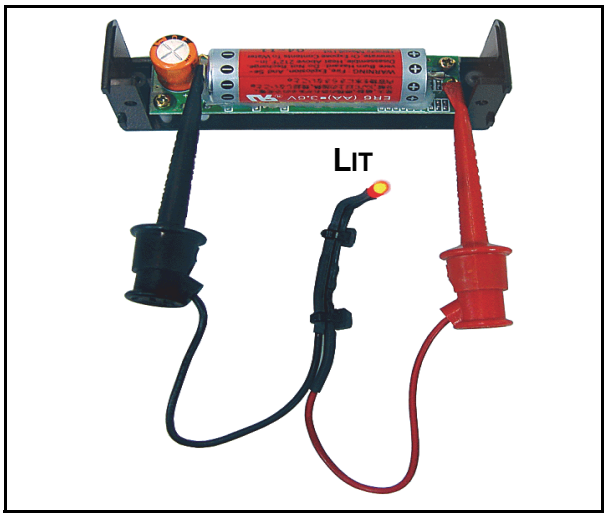



**Figure 143** Refresh Harness Battery Connection

2. The Red LED on the "Refresh Harness" will light, indicating a good Battery connection exists.
3. Wait 10 minutes.
4. Remove the "Refresh Harness" and wait 10 Seconds.
5. Perform the Battery "Load" Test again.
   If the voltage level is still 3.15 Volts DC or less, replace the entire Memory Module.


© 2012, Japan CashMachine Co., Limited

# Intelligent Cash Box (ICB®) System
## Operation and Maintenance Manual
Appendix A

## A INDEX


**B**

Battery Refresh
procedures for performing… 55

**C**

Cash Boxes
Types of… 2

**D**

Disabling ICB
procedures for… 10
Docking Stations
communicating with… 28

**F**

Flowchart… 37

**I**

ICB Cash Box
procedure for reading data from… 29
ICB Enable/Disable
procedures for
performing… 9

**L**

Language Preferences
the setting of
selecting… 27

**M**

Machine Numbers
Set Ticket procedures for setting… 7
MDM2 Program Installation
procedures for… 13
Memory Module
Switch & Sensors
locations of… 55

**P**

Printer Station
Types available… 3
Printing Tickets
procedures for… 10

**R**

Retrofit Kits
types required… 3

**S**

Safety
pictographs indicating… 1
Special Notes
italic text highlights… 1

**U**

UBA Diagnostics
Initialization errors for… 10



© 2012, Japan CashMachine Co., Limited

THIS PAGE INTENTIONALLY LEFT BLANK

 © 2012, Japan CashMachine Co., Limited

## B GLOSSARY

## Numerics

1 **4-Port RS-232 to 44-pin PCI Adapter** – allows the connection of four RS232 Devices to the Computer using a PCI Adaptor Card… See Page 45

## A

2 **Asset Number Alert** – an option in the MDM2 Application which allows for an alert message to be provided when the associated Cash Box from a particular Asset is docked on the Read/Write Tool… See Page 23

## B

3 **Bill Validator** – a device which accepts and validates paper currency. The Bill Validator is assigned an Asset number which references it to the Game or Machine in which it is installed… See Page 2

## C

4 **Cash Box Number** – a unique number used to identify each Cash Box in the ICB System. The number is assigned by the MDM2 Application when the Cash Box is first docked onto a Read/Write Tool Station. On subsequent dockings, if the Cash Box Number is determined to be missing or corrupted, the MDM2 Application will assign the Cash Box a new number… See Page 18

5 **Cash Box Number Alert** – An option in the MDM2 Application which allows for an alert message to be provided when a 'looked for' Cash Box is docked on the Read/Write Tool.… See Page 24

6 **COM Port** – a serial-based communications channel used to interface between the Host PC and an external device. In ICB, COM Ports are used to communicate between individual Docking Stations and the Host PC based MDM2 Application … See Page 7

7 **CSV** – an acronym for **C**omma **S**eparated **V**alue. CSV Data Files can be imported to, and exported from, ICB Web Reports. The files are structured so that each data value in the file is separated by a comma… See Page 6

## D

8 **DB-9 to DB-9** – a serial communications cable with a singular DB-9 Connector on each end. Used when connecting an individual Docking Station to a Host PC … See Page 45

9 **Disable Ticket** – a Bar-coded Ticket which, when inserted to an ICB capable Bill Validator, disables and turns off the ICB related circuitry.… See Page 9

10 **Docking Station** – a device (also referred to as a 'Read/Write Tool' in earlier JCM Documents), which works with the MDM2 Application to read and transfer data from ICB Enabled Cash Boxes. The Cash Box is then initialized for use in another Asset… See Page 2

 © 2012, Japan CashMachine Co., Limited

## E

11 **Enable Ticket** – a Bar-coded Ticket which when inserted to an ICB capable Bill Validator enables and turns on the ICB related circuitry… See Page 9

## F

12 **Fan-fold Paper** – A stacked bundle of Ticket Paper connected together and folded in an upward, back-and-forth, folded manner… See Page 6

## I

13 **ICB** – an acronym for **I**ntelligent **C**ash **B**ox. Intelligent Cashboxes utilize a memory circuit which maintain an active count of the Banknotes and/or Tickets that are stacked in the Cash Box. The function serves as an aid to Casino Accounting Personnel and increases the accuracy and efficiency of Soft Drop and Soft Count procedures… See Page 1

14 **ICB Cash Box Memory Module** – An electronic modular circuit added on to a standard JCM Cash Box to give it ICB capability. The module contains Optical Sensors, an enable/disable Switch, a long-life Lithium Battery, and a Flash Memory IC… See Page 2

15 **ICB CD** – a Compact Disc containing the necessary files required to set up a Machine Set Ticket program, create a Cash Box numbering program, and two files describing how to convert a database spreadsheet to a .csv Format… See Page 6

16 **ICB Ticket** – a Software Application which allows for printing Enable, Disable, and Machine Number Tickets from an ICB compatible Printer Station… See Page 6

17 **ICB Web Reports** – an Internet Browser-based data-tracking and reporting Application that utilizes MDM2 data to provide the user with customized data reports based on data obtained from regularly scheduled drop cycles … See Page 11

18 **Initialization** – a process which erases and clears the memory of an ICB enabled Cash Box so it can be reused again for any Asset on the Casino Floor… See Page 10

19 **IR** – An acronym for **I**nfra **R**ed Light Transmitter or Receiver… See Page 10

## J

20 **JCM** – an acronym for **J**apan **C**ash **M**achine - aka JCM Global: Having offices worldwide, JCM is a leader in currency handling and Banknote validation technology, and is also manufacturer and provider of the Intelligent Cashbox System… See Page 2

## M

21 **Machine No. Ticket** – a Bar-coded Ticket which when inserted to an ICB capable Bill Validator assigns the Validator with the Asset number encoded on the Ticket… See Page 43

22 **MDM/MDM2** – an application which, in conjunction with a Docking Station, collects transaction and status data from ICB enabled Cash Boxes and then writes the data to the Host PC for later access by the ICB Web Reports Application … See Page 44

23 **MDM Data Location** – data that specifies the Host PC location where MDM Data is stored when the MDM2 Application is exited. This location is subsequently used by ICB Web Reports for retrieving data… See Page 19


© 2012, Japan CashMachine Co., Limited

24 **Multi-port Adapter** – as used in ICB, a 4-port to 44-pin Adapter Cable which allows for connecting up to four Docking Stations (via individual DB-9 Connectors) to a PCI-based Interface Circuit Board which is then assigned the 4-COM Ports on the Host PC… See Page 46

## P

25 **Pictograph** – small, internationally recognized, safety and attention symbols placed to the left of Notes, Cautions and Warnings throughout a JCM Maintenance Manual … See Page 1

## R

26 **Read and Erase** – an option in the MDM2 Application which allows for reading the ICB Data from a Cash Box, and then clearing (initializing) the Cash Box Memory circuit so that the Cash Box may be reused for another Asset. For the Soft Count process, this is the normal operational mode… See Page 21

27 **Read Only** – an option in the MDM2 Application which allows for simply reading the ICB data from a Cash Box. The Cash Box is not initialized, and the memory contents of the Cash Box remain intact. … See Page 21

28 **Read/Write Tool** – a device (also referred to as a 'Docking Station' in earlier JCM Documentation) which works with the MDM2 Application to read and transfer data from ICB Enabled Cash Boxes. The Cash Box is then initialized for use by another Asset… See Page 2

29 **Refresh Harness** –a device used when performing maintenance or troubleshooting on ICB Cash Box Memory Modules… See Page 50

## S

30 **Special Notes** – notes provided to alert the reader to specific information which often affects the operation of the Unit within JCM Maintenance Manuals. The notes are provided throughout the Manual, and are identified by the pictograph of a small hand pointing to the word “NOTE”. Special Notes are always written in italic text… See Page 1

31 **Station Status Indicator** – a graphic indicator within the MDM2 Application located on the right side of the Screen that provides a real-time indication of all connected Docking Station’s status. Different indicator messages are provided to specify whether the Docking Station is communicating or not, or if an attached Ticket Printer has an error or needs Paper. The Status Indicator also reports progress or non-progress messages during the Cash Box dock and read procedure … See Page 26

## T

32 **Ticket Printer** – as used in the Intelligent Cash Box System, Ticket Printers are used to print Machine Number Tickets, Enable Tickets, Disable Tickets, and Barcode Tickets… See Page 30

33 **TSP-02** – a JCM Ticket Printer compatible for use with the ICB System… See Page 3

## U

34 **UBA** – An acronym for **U**niversal **B**ill **A**cceptor, a JCM Bill Validator compatible with the ICB (Intelligent Cashbox System)… See Page 5

 © 2012, Japan CashMachine Co., Limited

## V

35 **Validator Head** – the part of a Bill Validator responsible for validating inserted Banknotes or Tickets. The Validator Head contains an array of Optical (and sometimes Magnetic) Sensors used to read each Banknote. Information read by the Sensors is compared to reference patterns stored in memory to determine if the inserted Banknote/Ticket is valid… See Page 4

## W

36 **WBA** – an acronym for **W**orld **B**ill **A**cceptor, a JCM Bill Validator compatible with the ICB (Intelligent Cashbox System)… See Page 3

 © 2012, Japan CashMachine Co., Limited

© 2012, Japan CashMachine Co., Limited

For the Americas & Oceania, E-mail: support@jcmglobal.com
For the UK, Ireland, Europe, Africa, Russia & Middle East E-mail: support@jcmglobal.eu
For Asia E-mail: asiapactechsupport@jcmglobal.com

**Issue #ICB-SME-01-04**


© 2012, Japan CashMachine Co., Limited